Public Health England

Protecting and improving the nation's health

Addressing the Obesity Challenge in the East of England

- A report to the East of England Clinical Senate Assembly

March 2017

Foreword

Working daily within our professional disciplines in the health and care system, we are always confronted with the practical challenges and realities of obesity in the East of England. With nearly two in every three adults in the region overweight or obese (higher than the national average), we are faced with an unprecedented challenge for the NHS and Adult Social Care.

Overweight and obesity is a major cause of morbidity and mortality, with 8.7% of deaths in the UK attributable to obesity. The cost of treating obesity and the wider health and societal consequences are estimated to rise to nearly £50billion per year in the UK by 2050, and potentially £4.5billion per year in East of England alone.

Obesity is indeed a major public health challenge and arises from a complex and interdependent interplay between political, economic, social, and biological forces. Addressing this challenge requires a systems and collaborative approach that includes, but is not limited to, clinicians and commissioners of health and care services. We all have a collective responsibility to embed actions within our daily practices and lives including opportunities to enable healthier behaviours within the populations we serve. To make a real impact we therefore need to work together to create an enabling environment that facilitates better collaboration within the health and social care system in the East of England and across professional groups, from generalists to sub-specialists, commissioners to providers, and amongst clinicians in physical health and mental health.

PHE East of England and the Clinical Senate play a critical role in addressing this challenge. Through our data and intelligence, and careful review of local health systems' pathways and plans in the East of England, we have identified obesity as a major driver of health care demand now and in the future. We therefore strongly felt that 'Addressing the Obesity Challenge' should be the main theme of this year's Clinical Senate Assembly. The Assembly offers us a great opportunity to come together to learn, share, collaborate and innovate.

In preparation for our assembly, we felt that it would be most helpful to have a report that highlights the national and local, current and future impact of obesity in the region, and to provide some of the current and potential initiatives that could be adopted to mitigate the adverse impact. We would like to thank all our teams and colleagues involved in writing this report.

We hope all of you attending the Clinical Senate Assembly will find this document and event useful. We look forward to your active engagement and contribution to this important topic.

“Coming together is a beginning;
Keeping together is progress;
Working together is success.” - *Henry Ford*

Thank you

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Abbreviations

5YFV	The 5 Year Forward View
BMI	Body Mass Index (weight (kg)/height^2 (m^2))
CCG	Clinical Commissioning Group
CG	Clinical Guidance
CQUIN	Commissioning for Quality and Innovation
DPP	Diabetes Prevention Programme
DH	UK Department of Health
EoE	East of England
LA	Local Authority
LD	Learning Disabilities
MECC	Making Every Contact Count
NICE	National Institute for Health and Care Excellence
NOO	National Obesity Observatory
PHE	Public Health England
STP	Sustainability and Transformation Plans
WHO	World Health Organisation

Executive Summary

Over a quarter of adults in England are obese with overweight and obesity costing over £500 billion to the NHS in 2015. The rapid rise in prevalence of obesity from 15% in 1993 to 27% in 2015 has been attributed to a complex interplay of biological, behavioural, environmental and societal factors.

The Foresight report set the scene for the UK government to tackle obesity as a priority. Since then, there have been sustained policy efforts to reduce levels of excess weight in adults and children including Healthy Weight, Healthy Lives – a cross government strategy, and the Childhood Obesity Plan. These policies have resulted in a range of national initiatives such as Change4Life.

In the East of England (EoE), nearly two thirds of adults are overweight or obese. Regional patterns and trends of obesity over time mirror national patterns, with rising prevalence in adults and Year 6 children, and greater impact on more deprived areas. People with poor mental health or learning disabilities are also at greater risk of obesity. These factors contribute to health inequalities in the EoE.

Services for obesity follow a standard tiered pathway encompassing primary, secondary and tertiary prevention which prevent the onset, progression and complications of obesity through health promotion, weight management to specialist medical and surgical services. The provision in the region can be patchy, though strong pathways exist. The national Institute for Health and Care Excellence (NICE) has issued a range of guidance to facilitate development and provision of evidence based care in obesity pathways, and recommend behaviour change interventions from brief advice to multi-component weight management programmes.

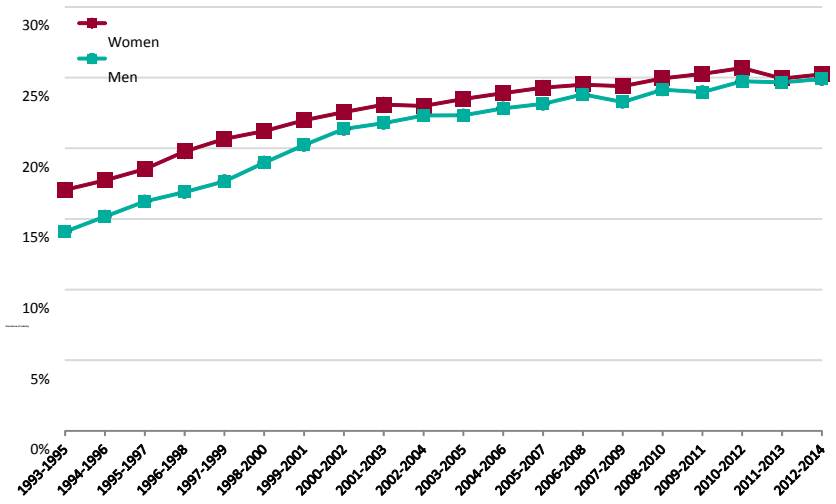
The Five Year Forward View has offered the health and care system an opportunity to embed prevention in the sustainability and transformation plans. Across the six footprints in the EoE, work has begun to address the three gaps in health and wellbeing, care and quality, and finance and efficiency. Evidence based interventions that tackle the obesity challenge on a population level fit well with these aims. Evaluations of weight management and wellbeing programmes have shown a return on investment and make an urgent case for implementation. Public Health England has worked with the NHS to develop the Diabetes Prevention Programme, and with Health Education England on Making Every Contact Count consensus and resources. The OneYou social marketing campaign has influenced large numbers of people to make step changes in their lives. Hospitals and healthcare employers also have a role to play in ensuring the wellbeing and improving the lifestyle of both their staff and patients, and creating health promoting hospitals can have impact on both patients and staff.

This report has drawn together national and local intelligence on obesity with what works in addressing this challenge and what we are doing locally. The time is right to come together to address the obesity challenge in our populations. This is an opportunity to translate evidence into policies and practice through collaboration and action.

Introduction

Obesity is a global public health problem, with numbers of obese people having doubled since 1980, resulting in nearly 2 billion overweight or obese adults in 2014.(1) In England, the prevalence of obesity among adults rose from 14.9% to 26.9% between 1993 and 2015 (2)(Fig. 1) with over-weight and obesity costing an estimated £556.1 billion to the NHS in England(3) and £27 billion to the wider economy in 2015.(4, 5) This includes an annual cost to Social Care of £352m. The Foresight report into tackling obesity also showed that based on trends observed in 2007, over half of the population will be obese by 2050 with a projected cost of £10 billion to the NHS and nearly £50 billion to the wider economy.(4)

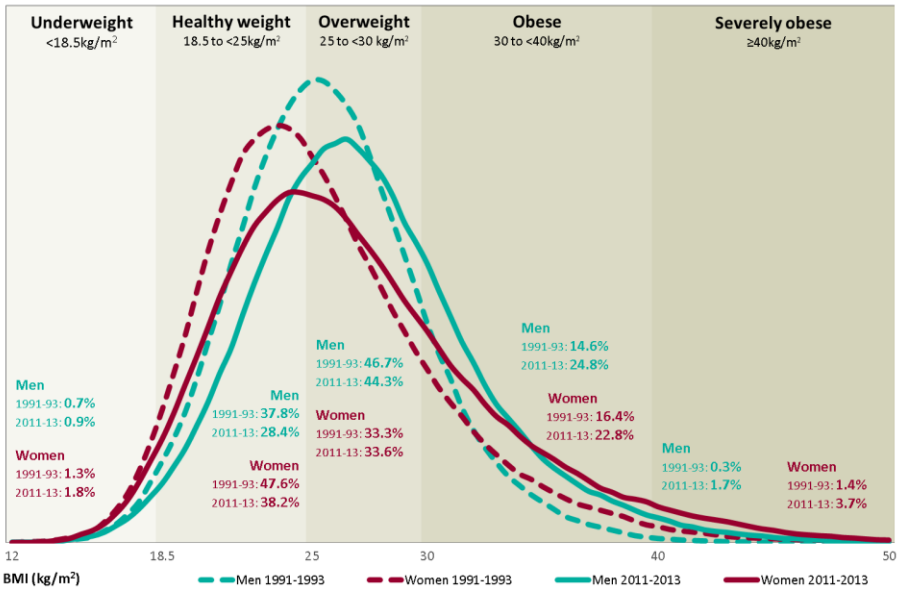
Figure 1: Trend in obesity prevalence among adults in England, 1993 to 2014 (three-year average)



Source: Health Survey for England

Clinically, overweight and obesity are well-recognised and defined by the World Health Organisation (WHO) as abnormal or excessive fat accumulation that may impair health and results primarily from an imbalance between energy intake and expenditure, with mediation through a neuro-behavioural pathway. The clinical definition of obesity is based on body mass index (BMI=weight (kg)/height^2 (m))≥30kg/m^2, though susceptibility to disease operates on a continuum and there is no threshold effect at 30kg/m^2. BMI provides a useful estimate of body fat, though there is evidence that abdominal fat and central obesity, defined simply by waist circumference or waist-to-hip ratio are also useful measures to assess obesity related risk.

Figure 2: Change in the adult BMI distribution in England, 1991 to 1993 and 2011 to 2013



Source: Public Health England

Obesity does not affect all groups equally however. Obesity is more common among people living in more deprived areas, older age groups, some black and minority ethnic groups and people with disabilities. (5)

The causes of obesity are a complex interplay of biological, behavioural, environmental and societal factors that are still not yet fully understood.(4) The increase in levels of overweight and obesity has occurred quickly over the past three decades, during which time there is unlikely to have been significant changes in our genetic structure. However, changes in working patterns, transport, daily activities and food environment have resulted in interactions with pre-existing genetic susceptibility in many people to put on weight. Evidence based interventions which target causes of obesity on an individual level include dietary advice, increasing physical activity and counselling to support behavioural change. However, there are also effective societal actions that can increase healthy behaviours such as food taxation and providing opportunities for physical activity such as cycling schemes. Ultimately, a whole systems approach is required to tackle obesity on all levels.

The Global Burden of Disease study showed that alongside smoking, obesity and poor diet are two of the leading causes of poor health in Britain.(6). The most serious health consequences associated with obesity in adults include type 2 diabetes, cardiovascular disease, musculoskeletal disorders and some cancers. In addition to increased risk of disease, there can be significant impact on mental health and wellbeing. The Foresight report suggested that obesity was becoming “normalised” and the British Social Attitudes survey into obesity found that people tend to overestimate what obesity means in terms of body size: almost half of people (46%) cannot correctly identify when a woman is obese and only 39% correctly identify obesity in men.(7). The economic impact of obesity is wide

ranging, with direct costs to the NHS and social care, in addition to costs to individuals and society with lost days at work and increased benefits payments.

As the UK emerges as one of the most obese countries in Europe, there have been repeated calls to take action to mitigate the projected impact of obesity on the population. But, obesity is a wicked problem, (8) and requires strong leadership and a co-ordinated approach amongst diverse partners united in one health and care system, working towards a common goal.

The purpose of this report is to provide context and information, using local and national intelligence, to the clinical senate assembly members on the challenge of obesity in the East of England and how we can work together to address this important issue.

Policy context

In 2007, the Foresight report 'Tackling Obesities: Future Choices' revealed worrying levels of obesity in the UK. Its findings informed the government's 'Healthy Weight, Healthy Lives: A Cross Government Strategy for England'(9) and 'Healthy Lives, Healthy People: A call to action on obesity in England' published in 2011.(10) The call to action was supported by the 2010 to 2015 coalition government policy: obesity and healthy eating which set ambitions by 2020 (11) to see

- a downward trend in the level of excess weight in adults
- a sustained downward trend in the level of excess weight in children.

The actions set out in the 2010-2015 policy document were designed to support people in making healthier choices and encouraging and helping people to eat and drink more healthily and be more active. Key elements, included the Change4Life social marketing programme, improving labelling on food and providing guidance on levels of physical activity.(12) The Public Health Responsibility Deal provided a means for businesses and organisations to support healthy eating and drinking and increased levels of physical activity. (13)

Tackling obesity and sustaining a healthier weight amongst the adult and child population of England is a priority area for PHE. The PHE strategic plan published in 2016, reflecting the actions in DH's Shared Delivery Plan, sets an ambition to: "enable England to become the first country in the word to significantly reduce childhood obesity, contributing to the delivery of the governments Childhood Obesity Plan and the development of the sugary drinks levy."(14)

In August 2016 the government's 'Childhood Obesity: A Plan for Action' was published which set out a series of actions aimed at significantly reducing England's rate of childhood obesity within the next ten years. (3) The actions identified in the plan and supported by PHE were:

- Introduction of a soft drinks industry levy
- Taking out 20% of sugar in products
- Supporting innovation to help businesses to make their products healthier

- Developing a new framework by updating the nutrient profile model
- Making healthy options available in the public sector
- Continuing to provide support with the cost of healthy food for those who need it most
- Helping all children to enjoy an hour of physical activity every day
- Improving the co-ordination of quality sport and physical activity programmes for schools
- Creating a new healthy rating scheme for primary schools
- Making school food healthier
- Clearer food labelling
- Supporting early years settings
- Enabling health professionals to support families

To support actions to tackle adult obesity, there have been a number of national adult focused initiatives such as the One You campaign, Making Every Contact Count and the NHS Diabetes Prevention Programme. In addition, the National Institute for Health and Care Excellence (NICE) has produced two sets of clinical guidance (CG) to facilitate evidence based decision making and commissioning: CG189: Obesity: identification, assessment and management (15) and CG43: Obesity prevention.(16) Further details on these initiatives will be provided in following chapters.

Obesity in East of England

Overview

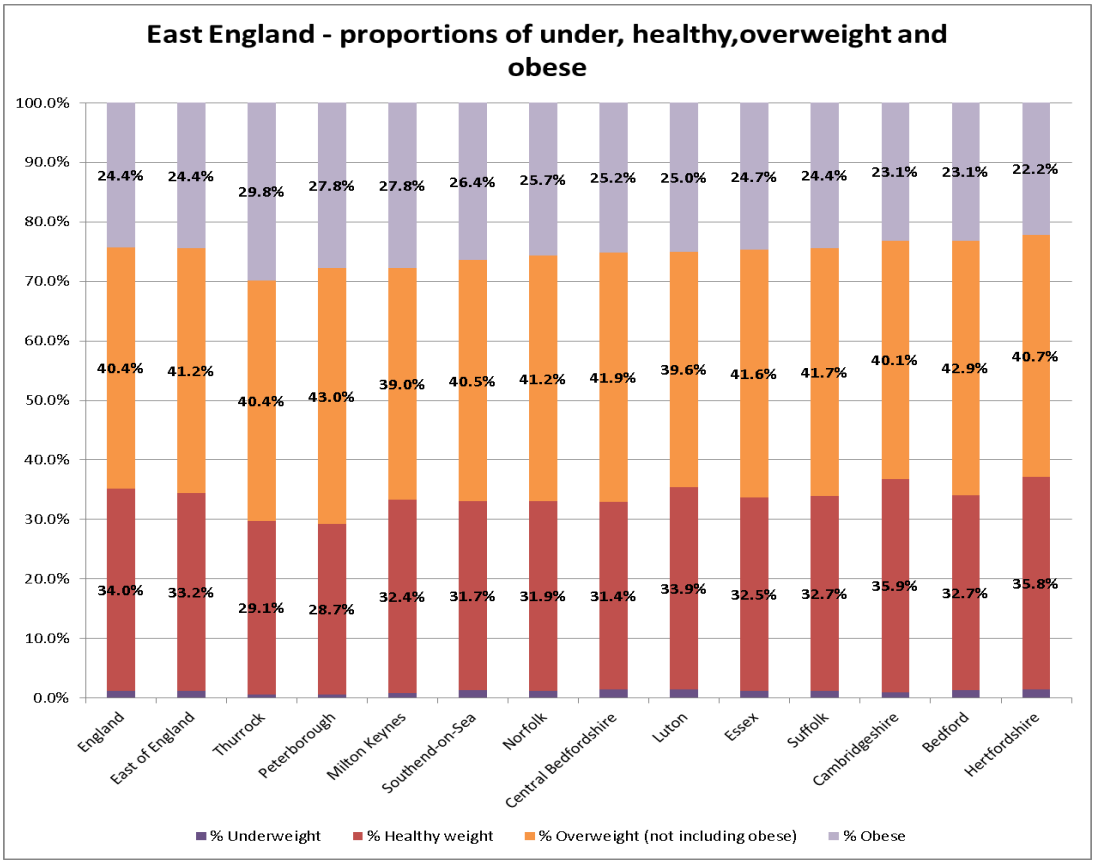
Nearly two thirds of adults are overweight or obese in the East of England (EoE), with only about one third of the adult population being of healthy weight. Obesity prevalence continues to rise over time, but the rate of increase appears to have slowed among men, and shown a small decrease in women.

Obesity and overweight increases over the life course reaching nearly 80% in men and 69% of women in the 55-64 age groups, while levels of unhealthy weight increase in children during their primary school years.

Excess weight in adults

For Upper Tier local authorities (LAs) in the region adult excess weight varies from 62.8% in Hertfordshire to 70.8% in Peterborough. The mean for EoE is 65.7% (95%CI 65.2 – 66.0) which is statistically higher than the England mean of 64.8% (95%CI 64.7 – 64.9) (Figure 3)

Figure 3: Proportion of adults in the East England who are underweight, healthy weight, overweight (not including obese) and obese (excess weight includes those that are obese and those overweight)



Source: Public Health England

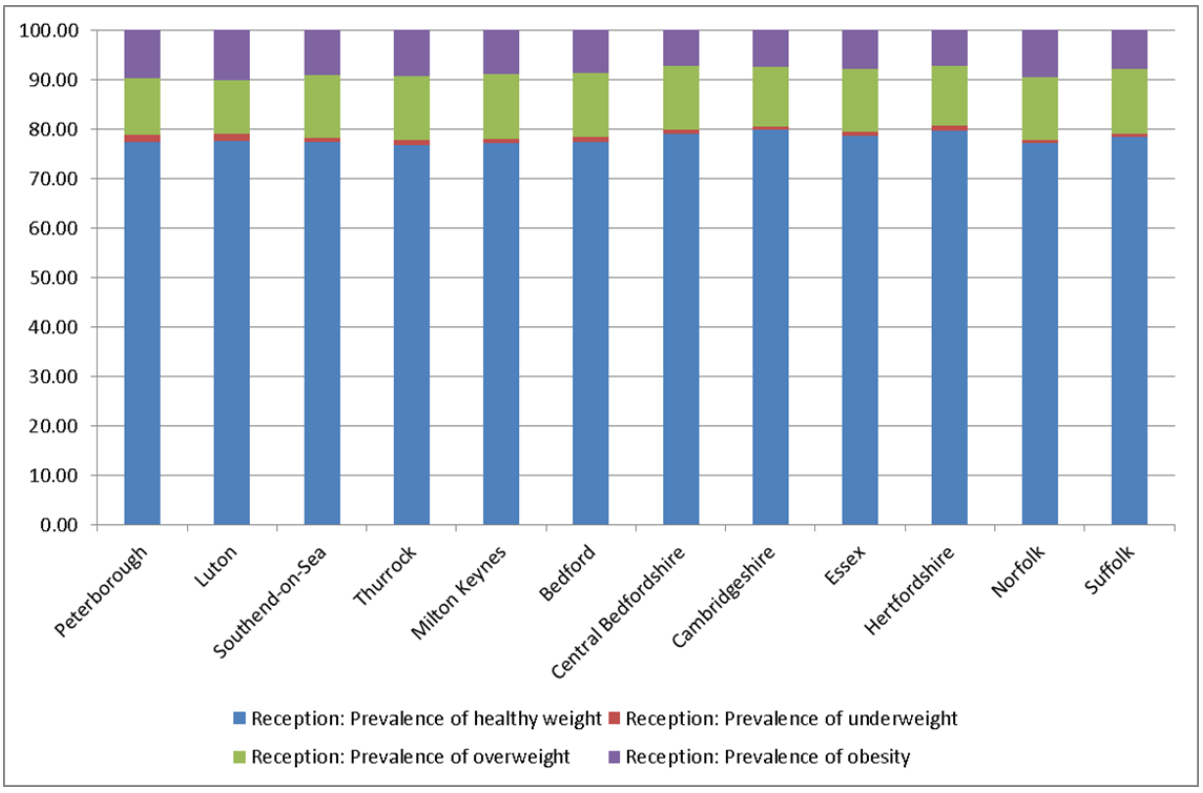
Excess weight in children

In East of England, 79% of children in reception (age 4-5) are a healthy weight, whereas only 68% are healthy weight in Year 6 (age 10-11). Similarly, 8% of children in reception are obese compared to 17% in year 6 in 14/15, as shown below by local authority areas (Figure 4).

Obesity prevalence in Reception aged children is highest among children from Black African, Black other, and Mixed White and Black African ethnic groups. Children in Year 6 from most minority ethnic groups (with the exception of Mixed White and Asian, and Chinese) are more likely to be obese than White British children.

The levels of overweight and obesity have increased over time in the East of England and will be discussed in the next section.

Figure 4: Prevalence of healthy weight, obesity and overweight in children in reception, East of England local authority areas 2014/15



Data source: Health and Social Care Information Centre, http://www.hscic.gov.uk/ncmp

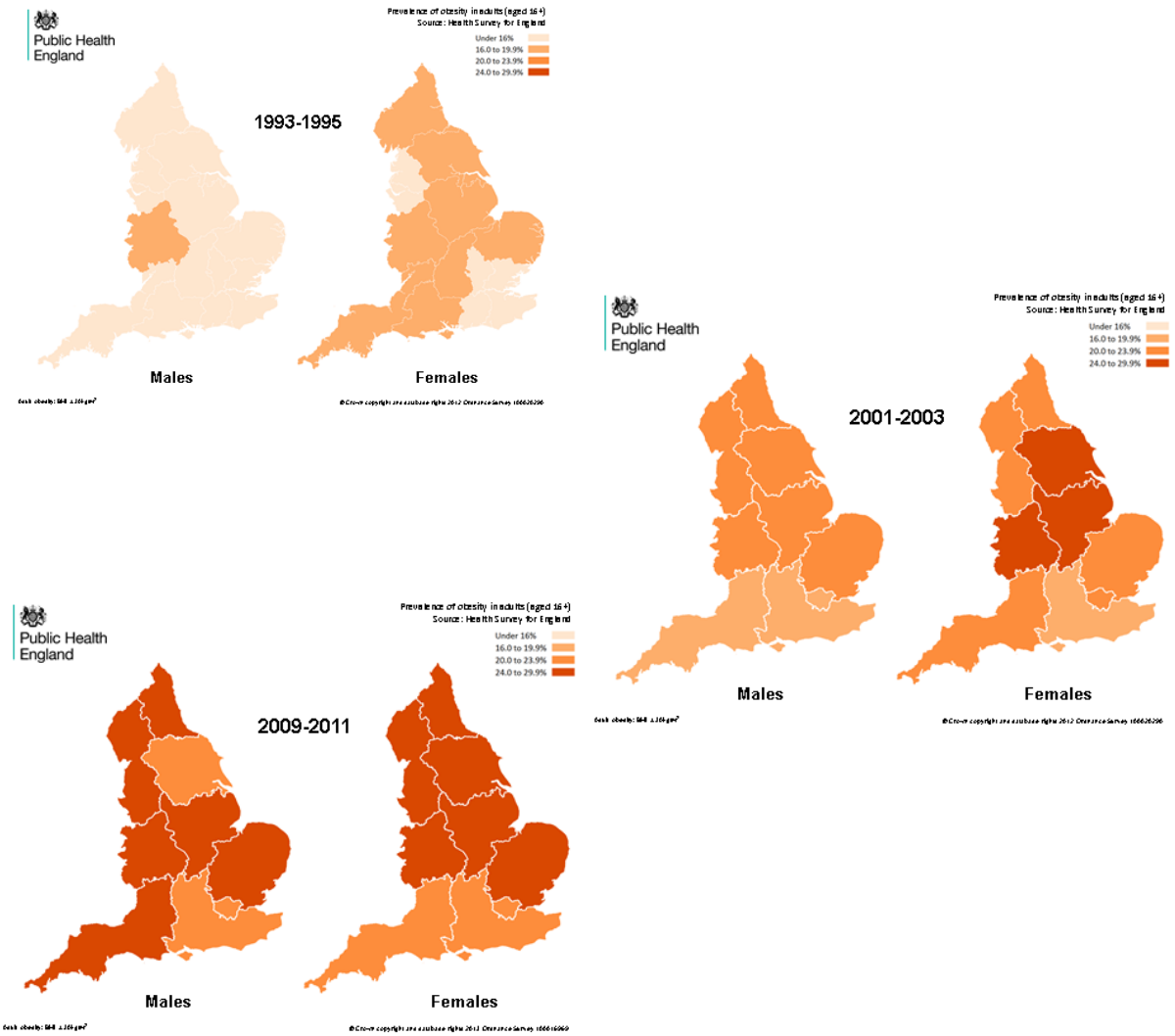
Time trends for Obesity

Time trends for adult obesity

Nationally, there has been a significant increase in prevalence of obesity in men and women over time. In 1993-95, the prevalence of obesity amongst men was below 16% in a majority of regions of England, and has risen to 24-29.9% in many regions.

Though the rate of increase appears to have slowed among men, and shown a small decrease in women, the gap between men and women has narrowed over time.

Figure 5: Obesity trends over time in England

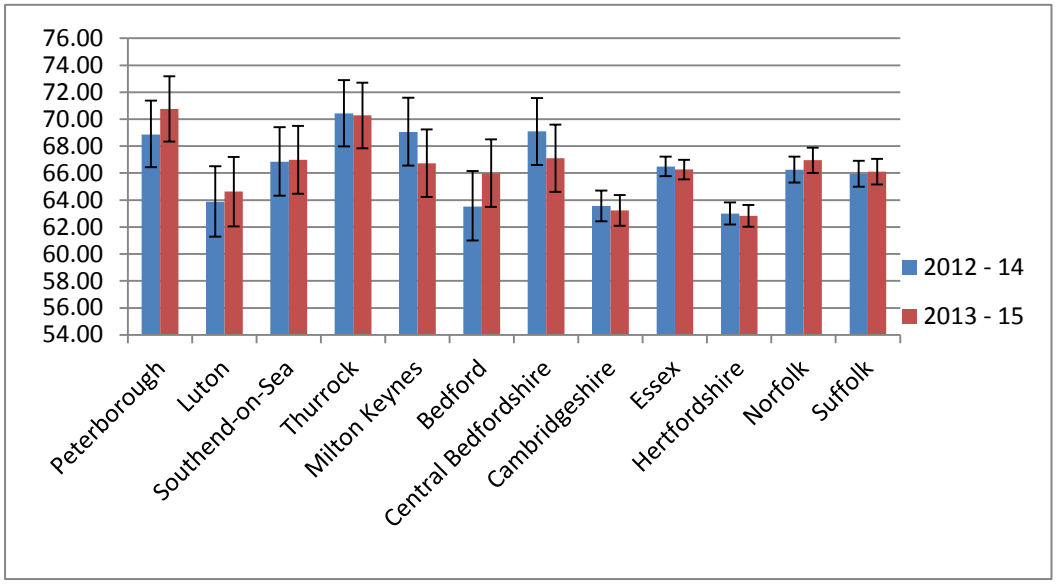


Source: National Obesity Observatory, now part of Public Health England

In EoE, though there are no statistically significant changes in recent years over shorter time frames (2012-14 and 2013-15), the overall prevalence of excess weight reflects national time trends. (Figure 6)

Furthermore, geographical patterns persist, and there are some indications of increasing levels in Peterborough and Luton, where some of the most deprived boroughs in the region are located. The highest levels of obesity occur in Peterborough and Thurrock and the lowest in Hertfordshire and Cambridgeshire.

Figure 6: Change in prevalence of adult overweight and obese between 2012-14 and 2013-15



Source: Public Health England

Time trends for children overweight

In England, the National child measurement programme has shown significant upward linear trends over time for obesity and overweight in Year 6 boys and girls, though downwards trends are observed for children in reception. (17) Figure 7 shows trends in East of England over a similar period. Similarly, there is a downward trend over time in unhealthy weight for children in reception, though for Year 6 children in East of England, the prevalence of obesity and overweight increased from 2007/8 to 2010/11 but appears to have remained relatively stable since then.

Figure 7: Proportions of healthy weight in children from 2006-2015 East of England

Data source: Health and Social Care Information Centre, http://www.hscic.gov.uk/ncmp

Obesity and Area Deprivation

There is a strong and consistent link between socioeconomic indicators and obesity; with obesity associated with poorer educational attainment in high income countries though conversely, obesity is associated with higher levels of educational attainment in low income countries.(18) In England, men and women who have fewer qualifications are more likely to be obese. Around a third of adults who leave school with no qualifications are obese, compared with less than a fifth of adults with degree level qualifications. Part of the reason for this is that levels of educational attainment are linked to levels of inequality and deprivation. People who are socioeconomically deprived tend to have poorer health and lower levels of education. (19) Figure 8 shows higher prevalence of obesity in areas with higher levels of deprivation.

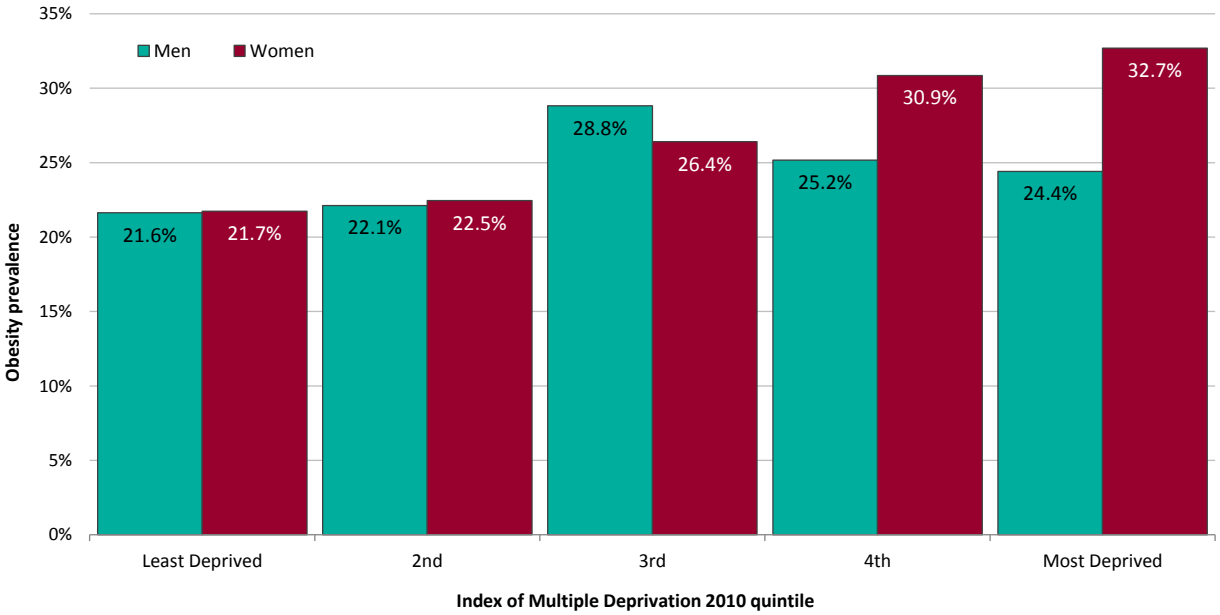


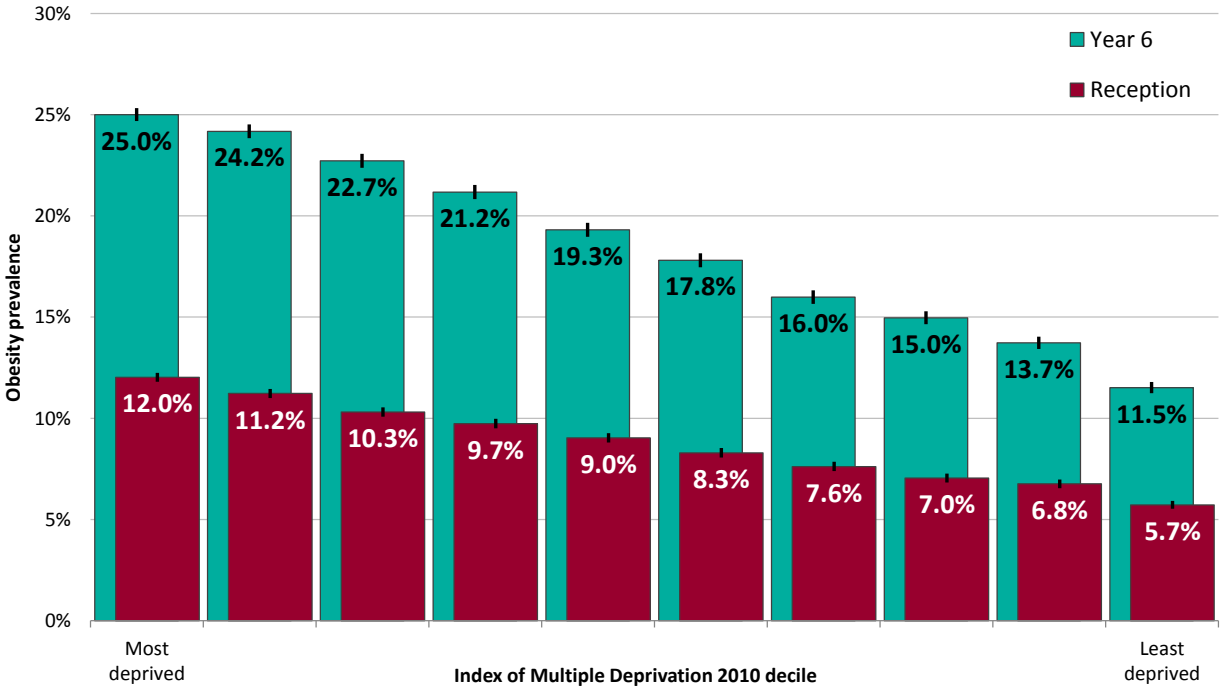
Figure 8: Adult obesity prevalence by deprivation quintiles

Adult (aged 16+) obesity: BMI ≥ 30kg/m^2

Source: Public Health England; Health Survey for England 2014

Obesity prevalence in the 10% most deprived areas in England is more than twice the prevalence in the least deprived 10%. The higher levels of obesity in more deprived areas is more evident amongst women, with a gradient emerging from the 3rd quintile with just over a quarter of women who are obese rising to nearly a third of women who are obese in the most deprived 20% of the population.

Figure 9. Obesity prevalence in Reception and Year 6 children by area deprivation decile.



Child obesity: BMI ≥ 95th centile of the UK90 growth reference

Source: Public Health England; National Child Measurement Programme 2014/15

Childhood obesity prevalence is more closely associated with socioeconomic status. More deprived populations tend to have higher obesity prevalence in children. (Figure 9) Children in year 6 show the strongest relationship between unhealthy weight and greater levels of area deprivation; year 6 children have a higher prevalence of obesity across all levels of area deprivation and steeper gradient of association compared to levels in reception children. This results in a widening gap between reception and year 6 obesity levels as area deprivation increases, indicating that primary schools in deprived areas have a role to play in prevention of obesity.

Obesity and Mental Health and well-being

People with poor mental health are at greater risk of obesity, and conversely, obesity can lead to poor mental health.(20) A systematic review of longitudinal studies demonstrated a bi-directional relationship between depression and obesity: people who were obese had a 55% increased risk of developing depression over time, while people who were depressed had a 58% increased risk of becoming obese.(21) People with severe mental illness are also at increased risk of obesity. Clinical studies have reported rates of obesity of up to 60% in people with schizophrenia or bipolar disorder.(22) Many antipsychotic, mood-stabilizing, and antidepressant medications commonly used to treat mental illness are also associated with weight gain.

This bi-directional, complex relationship outlined below suggests that actions to address obesity should be available for providers and clients of mental health services.

Mechanism	Obesity as a cause of poor mental health	Poor Mental health as a cause for obesity
Biological	increased rates of chronic disease, body pain, reduced physical activity, sleep problems, medication side effects and abnormal hormonal concentrations	medication side effects
Behavioural	dieting and binge eating	adoption of unhealthy lifestyles, use of food as a coping strategy, attrition from weight loss programs
Psychological	poorer perceived health, low self-esteem and body image concern	low expectations of weight loss attempts
Social	weight-related stigma and weight bias	reduced support from family and friends

Table 1. The bi-directional relationship between obesity and mental health problems

Obesity and Learning Disabilities

Around 2% of the UK population has a learning disability (LD) and less than a quarter of this group are known to local health and social services. (23) A report by the Sainsbury's Centre for Mental Health in 2005 found that the rate of obesity among people with a LD was significantly higher compared to people without a LD (28.3% compared to 20.4%). (24) Again there is a multifactorial causal relationship between obesity and LD, with mediating mechanisms encompassing behavioural, environmental and biological factors. Psychotropic medications used in the treatment of conditions associated with LD can also lead to weight gain. There are also specific genetic syndromes, such as Prader-Willi, where LD and obesity co-exist. People with learning disabilities are also at risk of obesity at an earlier age than the general population and as a consequence are likely to experience obesity-related health problems at a younger age.(25)

Local context (services)

Currently across East of England, local authorities are developing healthy weight / obesity prevention plans. The focus of these plans range from primary and secondary prevention, promoting physical activity, 'whole systems approach' to prioritise population level interventions that tackle an obesogenic environments (planning built environment, facilitate active travel, regulating growth of fast food outlets) and focusing and amending weight management services.

These are important elements for Sustainability and Transformation Plan (STP) footprints to consider and integrate into existing services and plans. Below is an overview of what is currently in place, and an example of how the services currently join up.

Obesity pathways and services in the region

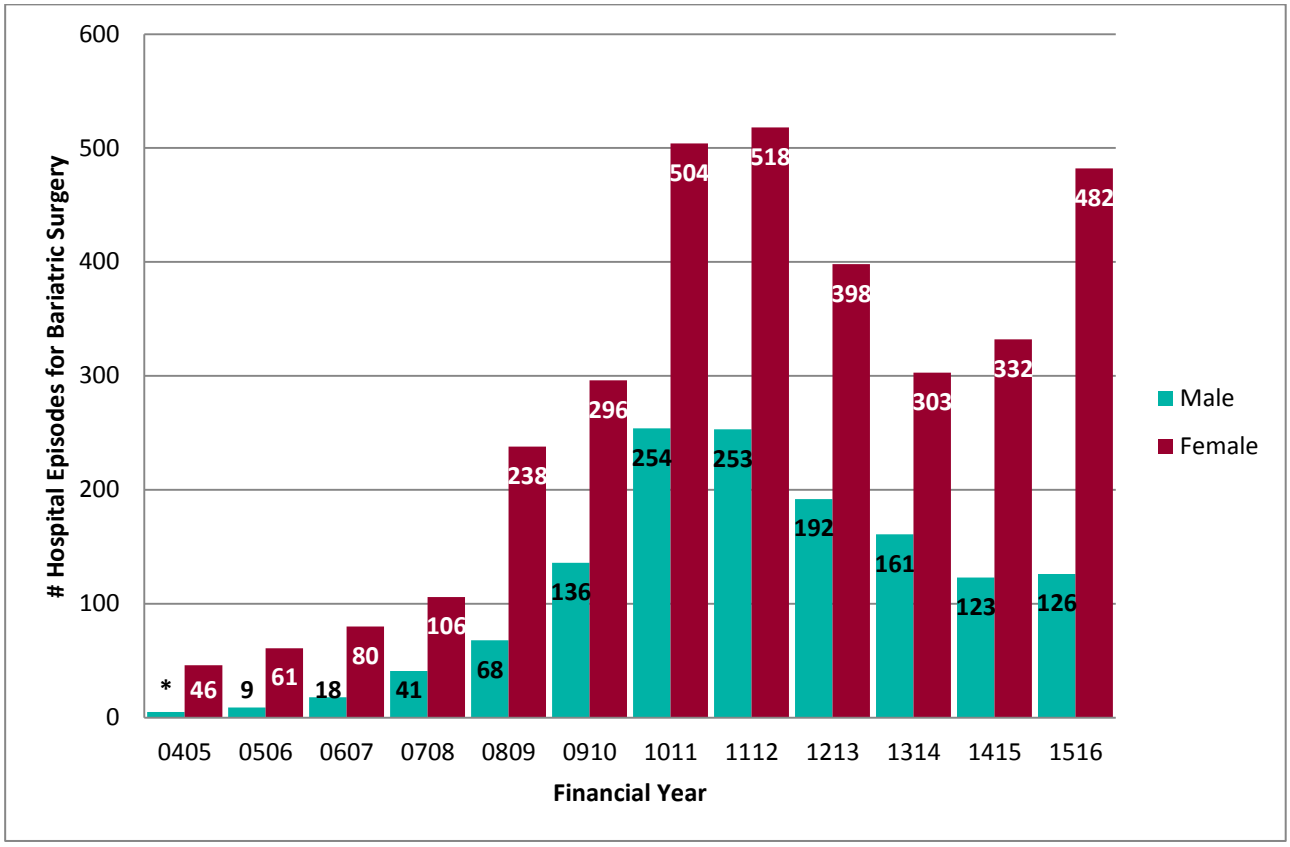
Obesity services follow a tiered approach, which can be viewed in terms of primary, secondary and tertiary prevention. Though definitions can vary, the general approach is:

- Tier 1 – whole population prevention activity, focusing on primary prevention and includes health promotion, where primary prevention is preventing the onset of a disease.
- Tier 2 – community weight management service, including lifestyle advice on diet and physical activity, focusing on secondary prevention of conditions associated with overweight and obesity through encouraging behaviour change, where secondary prevention is preventing progression of early disease.
- Tier 3 – specialist multidisciplinary obesity and weight management services service; this is usually through specialist referral routes and a requirement prior to consideration for surgical services. For people with obesity, this is an example of tertiary prevention, where activities prevent complications from established disease.
- Tier 4 – includes bariatric surgery.

Tier 1, 2 and 3 services are commissioned and funded by Local Authority (LA) or Clinical Commissioning Groups (CCGs). Population prevention / health promotion measures and strategies are funded from local authority budgets. An example of a local obesity pathway is shown in Figure 11. A list of commissioned obesity services in East of England is shown in Appendix 1.

Specialised Complex Obesity services, including bariatric surgery pre-assessment, perioperative management, postoperative and longer term follow up where it occurs within the specialised service will be funded by the NHS England. Luton and Dunstable University Hospital NHS Foundation Trust is the regional referral centre for bariatric surgery, though patients can also be referred to centres in London. The pattern of bariatric surgical admissions are shown in Figure 10.

Figure 10. Number of Hospital Episodes for Bariatric Surgery in East of England 2004/5 to 2015/16.



Source: Public Health England Local Knowledge and Intelligence East Team

Bariatric surgery has increased since 2004 to 2011. The apparent decline in recorded numbers have been attributed to a change in practice, where gastric band adjustments are made as outpatients and not recorded in hospital admissions data.

NICE clinical guidelines make evidence based recommendations of what interventions and services are clinically and cost effective, with guidance on preventing obesity and management, identification and treatment of obesity available, together with public health guidance on weight management, preventing excess weight gain and working with local communities. (15, 16, 26, 27)

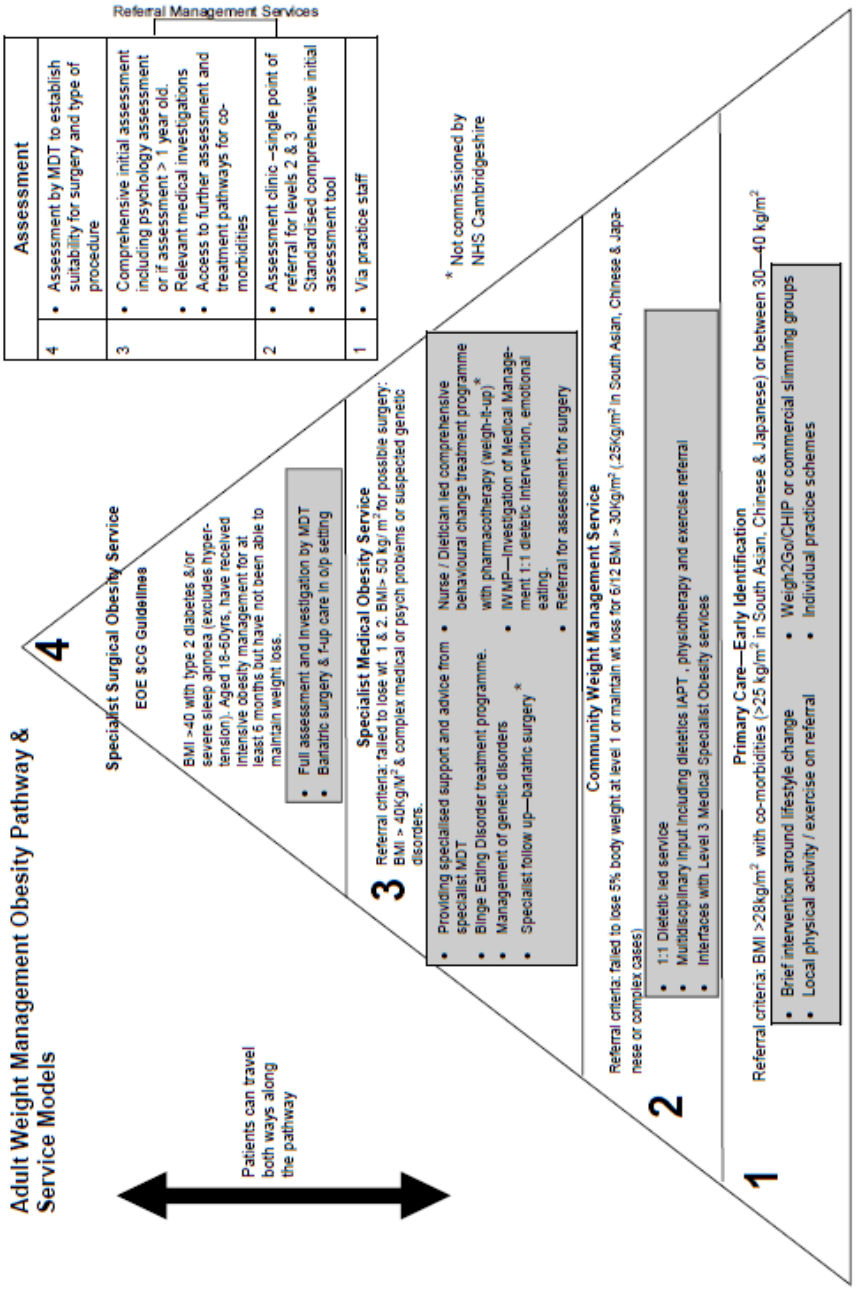
NICE has identified that healthcare professionals play an important and highly cost-effective role in providing brief advice on physical activity in primary care. It recommends that primary care practitioners should take the opportunity, whenever possible, to identify inactive adults and to advise them to aim for 30 minutes of moderate activity on five days of the week (or more). (28)

NICE guidance published in 2014 made recommendations on evidence based practice for delivery of weight management services for adults. (15)
The guidelines suggest that primary care organisations and local authorities should recommend to patients, or consider endorsing, self-help, commercial and community weight management programmes only if they follow best practice by:

- helping people assess their weight and decide on a realistic healthy target weight (people should usually aim to lose 5-10% of their original weight)
- aiming for a maximum weekly weight loss of 0.5-1kg
- focusing on long-term lifestyle changes rather than a short-term, quick-fix approach
- being multi-component, addressing both diet and activity, and offering a variety of approaches using a balanced, healthy-eating approach
- recommending regular physical activity (particularly activities that can be part of daily life, such as brisk walking and gardening) and offering practical, safe advice about being more active
- including some behaviour-change techniques, such as keeping a diary, and advice on how to cope with ‘lapses’ and ‘high-risk’ situations
- recommending and/or providing ongoing support.

PHE has produced an economic tool to estimate return on investment for weight management services.(29) Based on the assumption that a tier 2 intervention funded by local authorities recruited 45 men and 255 women with an average age of 51 years, a mean starting BMI of 33.2 kg/m2 and a 36% drop out rate; participants completing a 12-month intervention could reduce their BMI by an average of 2.46 kg/m^2 and the estimated total upfront cost would be £50 per person enrolled. This example would result in net savings over a 5 year period with an average annual health and care saving of c£30 p.a. per person enrolled (ie cumulative saving of c£150 per person over 5 years). Weight management interventions aim to have lifelong impact and are unlikely to manifest as high savings in the short term, however, this intervention could be cost saving to the health and care system by year 2. (30)

Figure 11. Obesity pathway in Cambridgeshire, demonstrating patient flows between tiers.

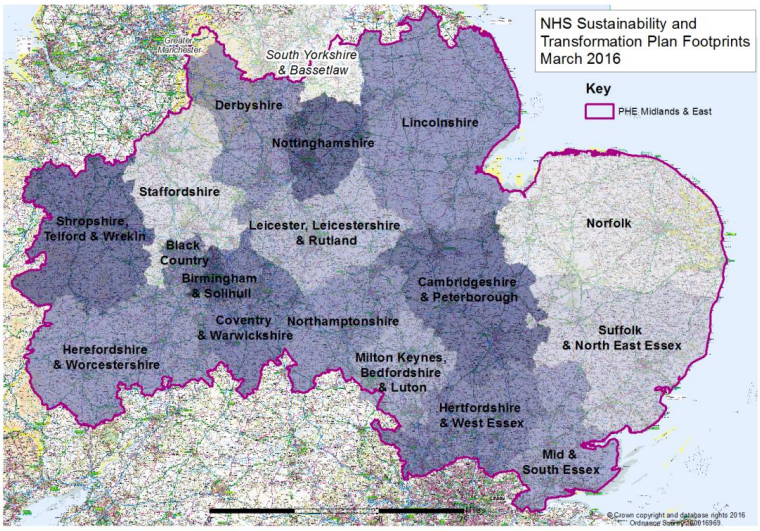


Five Year Forward View and Sustainability and Transformation Plans

The NHS Five Year Forward View (5YFV) set out the fundamental challenges faced by the health system. The 5YFV makes clear that maximising the opportunities from prevention is key to achieving a sustainable health and care system for the future, and a 'radical upgrade' in prevention is expected.

There are 6 STP footprints in EoE. In some cases these cut across historical planning unit boundaries, County Council and NHS England area boundaries, and are not co-terminus with potential devolution footprints. Across Midlands & East, STPs are being developed on the following geographical footprints:

Figure 12 STP Footprints across East of England



The STP plans have been submitted and the implementation stage is due to commence, if not started already. The focus of the STPs emphasised working together across organisational boundaries in a place-based health system to address the 3 gaps:

- Health and wellbeing gap
- Care and quality gap
- Finance and efficiency gap

Despite obesity posing such a significant population risk, whilst it is included in all EoE STPs in East of England, it does not feature strongly in all plans. An overview of references to obesity from STP plans is shown in Table 2. However, obesity and addressing lifestyle risk factors is a priority for all health and wellbeing strategies, indicating that integrated plans and joined up working, which draws on local expertise and embedded thinking on prevention, is required to tackle the obesity challenge.

STP	References to Obesity in submitted plans
Beds, Luton, Milton Keynes	References levels of overweight in children. Includes a Prevention Plan with initiatives to increase physical exercise and healthy eating
Cambridgeshire & Peterborough	Includes expansion of healthy lifestyle services to refer people to (incl. weight management and exercise programmes). Reflects Cambridge Healthy Weight Strategy.
Essex	Includes physical activity in children in STP plans. Majority of STP is a Diabetes Prevention Programme wave 1 area.
Herts & West Essex	Includes Diabetes Prevention Programme. Weight management and pre-surgery weight management already well-established, with enhanced focus in primary care outlined in plans
Norfolk & Waveney	Plans include obesity reduction target of <25%. STP plans also refer to physical activity, weight management tier 2, diabetes prevention, behaviour change and Making Every Contact Count
Suffolk & NE Essex	Expand targeting of existing lifestyle services addressing physical activity and diet including a behaviour change approach, plus increasing diagnosis of pre-diabetes

Table 2 . Overview of plans to address obesity in STPs.

Impact of Obesity

Obesity has a wide-ranging impact on disease risk, mental health and wellbeing and significant economic impact for the health system and on society. The effect of increased risk for metabolic, cardiovascular, musculoskeletal disease and cancer is well documented and mediated through endocrine, inflammatory and structural pathways. Obesity has a significant economic impact and estimates obtained through observed health service use and modelled projections show significant annual costs associated with obesity to the wider economy, NHS and social care systems. (30)

However, population patterns of obesity prevalence and treatments continue to evolve and modelled estimates should be interpreted with some caution as underlying assumptions change over time. Nonetheless, there are undeniably significant costs to individuals, their families and society due to obesity, and given that around two-thirds of our adult population is overweight or obese, action is required to curb these risks.

Impact on Health

The increased risk to chronic diseases attributable to obesity is shown in the table below. The most significant risks are for Type 2 diabetes, cardiovascular disease and colorectal cancer.

Disease	Relative risk women	Relative risk men
Type 2 Diabetes	12.7	5.2
Hypertension	4.2	2.6
Myocardial infarction	3.2	1.5
Colon/rectum cancer	2.7	3.0
Angina	1.8	1.8
Gall bladder disease	1.8	1.8
Ovarian cancer	1.7	-
Osteoarthritis	1.4	1.9
Stroke	1.3	1.3

From House of Commons Health Committee. Obesity: Third Report of Session 2003/4. London: The Stationery Office, 2004.

Table 3. Obesity and relative risk of disease

The increased risk of disease translates to higher levels of morbidity and mortality. Life expectancy for a morbidly obese person (BMI 40-45) is 8-10 years shorter than that of a healthy weight person and they are three times more likely to need social care. Similarly, obese people (BMI 30+) have a reduced life expectancy of three years, and are twice as likely to have limitations in activities of daily living. (31)

Social and Economic impact

Estimates of the direct NHS costs of treating overweight and obesity, and related morbidity in England have ranged from £479.3 million in 1998 to £4.2 billion in 2007. Estimates of the indirect costs (those costs arising from the impact of obesity on the wider economy such as loss of productivity) from these studies ranged between £2.6 billion and £15.8 billion. In 2006/07, obesity and obesity-related illness was estimated to have cost £148 million in inpatient stays in England. In Scotland, the total societal cost of obesity and overweight in 2007/08 was estimated to be between £600 million and £1.4 billion, the NHS cost may have contributed as much as £312 million.(32)

Tackling Obesities: Future Choices Project Report (2007) used a disease cost model to estimate NHS expenditure for 2007, 2015, 2025 and 2050 based on patterns and prices in 2007. This model showed that by 2050, NHS costs attributable to obesity and overweight would be £9.7 billion and the total costs would be £49.9 billion.(4) Overweight and obesity also have adverse social consequences through discrimination, social exclusion and loss of or lower earnings, and adverse consequences on the wider economy through, for example, working days lost and increased benefit payments. The societal cost also includes costs due to lost productivity in the UK economy.

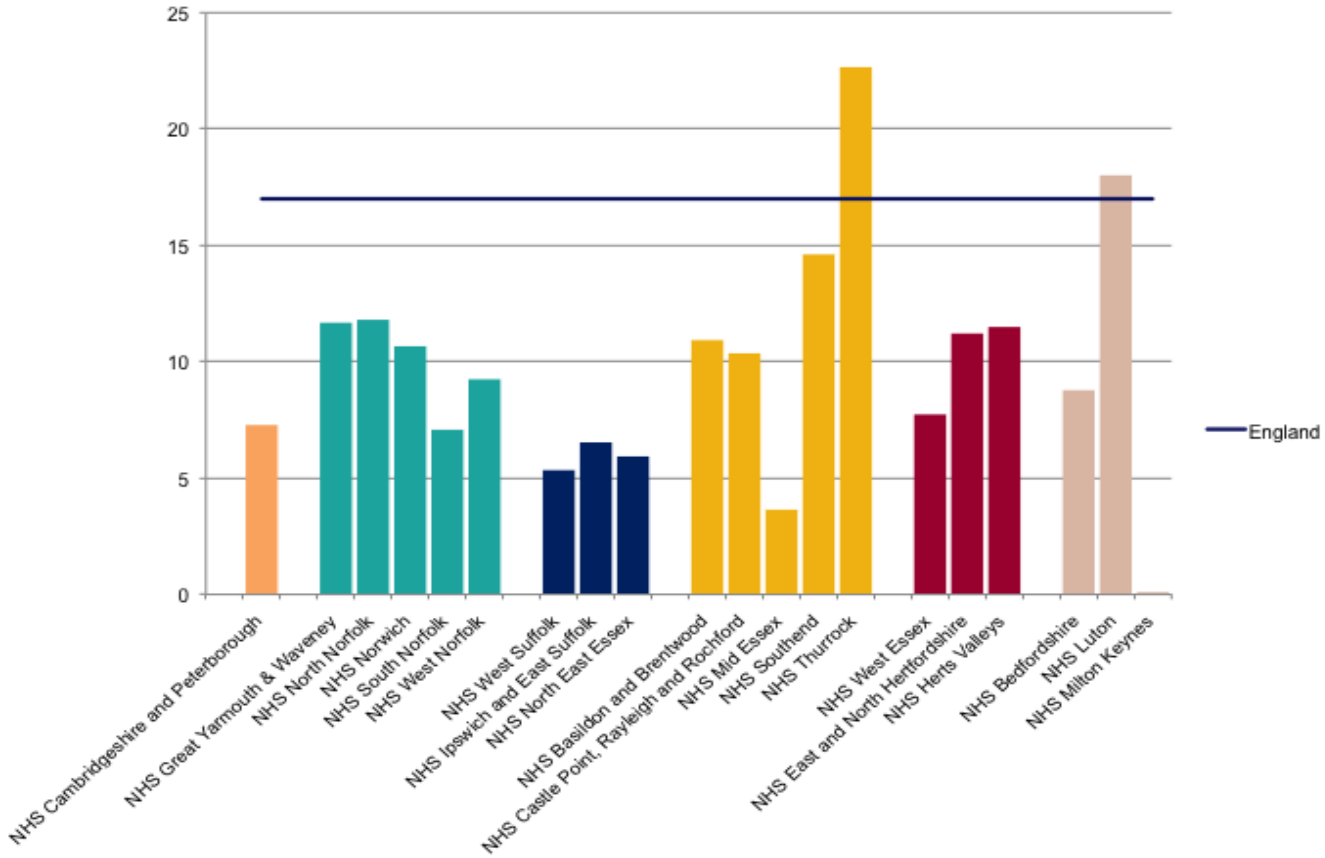
Impact on Health and Social Care Activity

As the prevalence of obesity rises, the associated costs of treating obesity will also rise. Figure 13 shows admissions where obesity was coded as the primary diagnosis for a finished consultant episode for each CCG population in 2014-15.

The increase in activity would contribute partly to the projected increase in NHS costs, however, the NHS costs are wider than those attributable to primary and secondary healthcare activity alone; there are also equipment and infrastructure costs. Organisations other than the NHS also have to plan for and accommodate the wider costs of obesity and obesity related disease, for example, the increasing cost of social care. Work by PHE suggests that an estimated extra £352 million per year is spent by local authorities on providing formal care for severely obese people compared to healthy weight people.

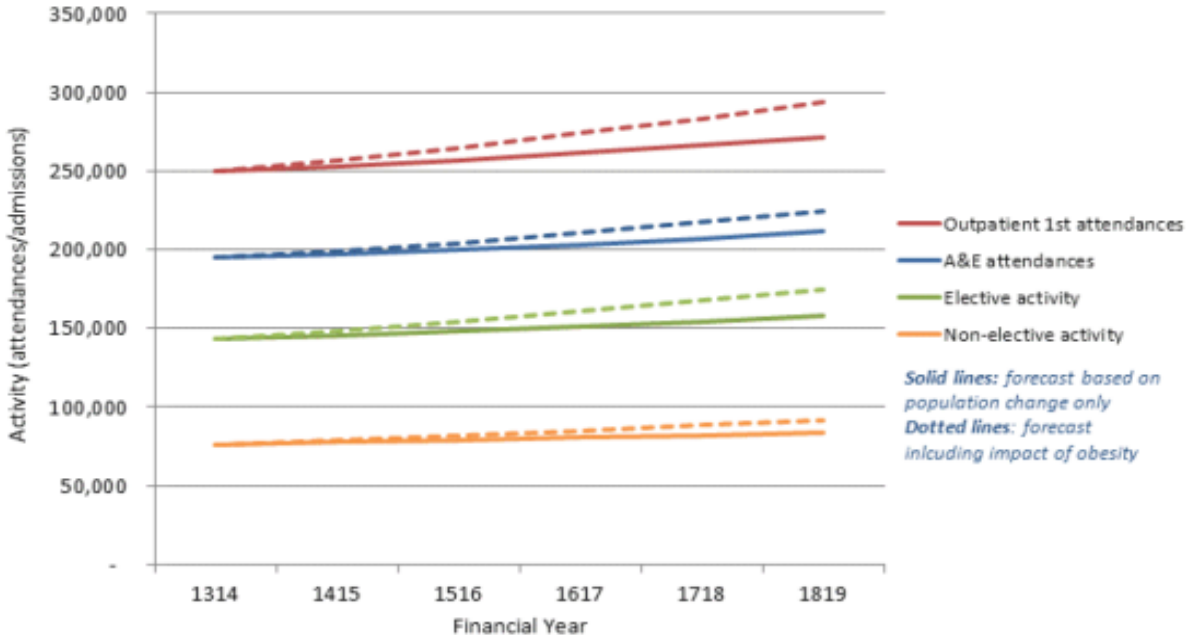
The Cambridgeshire and Peterborough CCG used results from a systematic review by Withrow *et al*. (33) to project impact of increased health services use by obese patients on local services. The review found that obese individuals have 30% higher health costs than healthy-weight individuals, and this uplift was applied to the CCG population. The projections show a steady increase in activity attributable to the obese population. (Figure 14)

Figure 13. Obesity related admissions per 100,000 population in 2014-15, grouped by STPs



Source: Data from NHS Digital, formerly HSCIC

Figure 14. Forecast Hospital demand for Cambridgeshire and Peterborough CCG population



Source: Cambridgeshire and Peterborough CCG system transformation team acute activity model

Obesity and Workplace Health

Obesity can impact on the workplace in a number of ways.(34) Obese employees take more short and long term sickness absence than workers of a healthy weight. In addition to the impact on individual health and increased business costs due to time off work through associated illnesses, obese people frequently suffer other issues in the workplace including prejudice and discrimination.

Why is obesity important to departments and services involved with workplaces?

- There are significant workplace costs associated with obesity. For an organisation employing 1000 people, this could equate to more than £126,000 a year in lost productivity due to a range of issues including back problems and sleep apnoea
- There may be jobs which obese people find more difficult to do or which are more dangerous due to the associated conditions linked to obesity, for example sleep problems may impact on alertness and may pose a potential danger for employees who drive or operate machinery.
- Individuals may be subject to stigmatisation and discrimination in the workplace – an issue which must be addressed by employers.
- Promoting physical activity and healthy food choices in workplaces helps employees to feel valued.

Employers have a role in supporting physical activity and healthier food choices in the work place. This can improve health and wellbeing of their employees, and therefore improve work performance and reduce costs for the organisation. Further information on potential activities to tackle obesity in the workplace are outlined in the sections in action for trusts.

Actions for Trusts (evidence of what works)

This report sets out a strong case on why obesity is a priority for the government, the NHS and all sectors in the UK. Action on obesity can have impact on:

- Improved health outcomes
- Improved quality of life
- Reduced demand on health and social care services
- Fewer people with long term conditions
- Reduced health inequalities
- Greater social cohesion
- Stronger local economy.

As more people are physically active, with less car travel, there will be less pollution and congestion, safer streets and more social interaction.

Evaluations of initiatives and modelling of impact has shown that targeting lifestyle changes and preventing obesity can bring a return on investment. As shown by Public Health England's showcase of evidence-based initiatives(35), there are a range of interventions that has shown a return on investment. Therefore, investing in obesity prevention can prove beneficial for both commissioners and the public.(5)

- In 2011-12, the Glasgow Health Walks project led to a return on investment of £8 for every £1 spent
- For every participant on a 12 session commercial weight management programme, the NHS stands to save £230 over a lifetime
- Birmingham's "Be Active" programme returned up to £23 in benefits for every £1 spent in terms of quality of life, reduced NHS use, productivity and other gains to the LA.
- Middlesbrough Environment City staff health and wellbeing programme reduced annual sickness rate per employee from 4.23 days to 2.4 days which brings improvements in wellbeing and productivity
- Getting one more person to walk to school could generate £768 in terms of NHS savings, productivity improvements and reductions in air pollution and congestion.
- Encouraging 1 more person to cycle to work rather than go by car could generate between £539 and £641 in savings

Taking action requires a whole systems approach, with multiple actions across STPs and systems to make sustained changes in individual behaviour, and the physical and social environment in which we work and live. One example is CCGs and local authorities can work together with providers to enable access into appropriate community and clinical obesity services for individuals suffering with mental health illness and/or with learning disabilities.

PHE has committed, along with partners including the Local Government Association, Association of Directors of Public and Leeds Beckett University, to support local authorities to deliver whole system approaches to tackle adult and childhood obesity in the long term.

This programme includes a comprehensive review of the evidence and practice, co-production and testing with a number of local authorities and development of a transferable roadmap to inform whole system approaches across the diversity of local authorities.
The programme is a key element of PHE's drive to support local approaches to tackling and preventing obesity, and is aimed at enabling local authorities to make a major step change in their ability to tackle this challenging issue.

The key to success is working in partnership across organisational boundaries of local authorities, commissioners, providers in different sectors to unite and tackle a common problem.

Diabetes Prevention Programme

Healthier You: The NHS Diabetes Prevention Programme (NHS DPP) is a joint NHS England, Public Health England and Diabetes UK programme launched in 2016. The NHS 5YFV set out an ambition to become the first country to implement at scale a national evidence-based Type 2 diabetes prevention programme, modelled on proven UK and international models and linked where appropriate to the NHS Health Check programme.

A substantial impact is estimated, with up to 20,000 individuals supported to reduce their risk of developing Type 2 diabetes in 2016/17 alone during early phase of implementation.

The programme will roll out to the whole country by 2020 with up to 100,000 places available every year. The DPP identifies participants through a variety of routes including:

- Opportunistic referrals from primary care and other sources;
- Primary care records review to identify those at known higher risk;
- Referrals from NHS Health Checks programme (mandated delivery by LAs)

NHS Health Checks are targeted at people aged 40-74 to promote awareness, assessment and management of risk factors. NHS Health Checks are a key mechanism for identifying individuals at increased risk of Type 2 Diabetes via a diabetes risk assessment.

The DPP focuses on support for weight loss and healthy eating, increasing physical activity levels, empowering participants to take charge of their health and wellbeing and learning how to prevent diabetes.

The map below (Figure 15) shows the areas in which the programme was implemented as part of Wave 1. DPP has since extended to Bedfordshire, Luton and Milton Keynes as a result of a successful Wave 2 bid. DPP rollout in STP areas are shown in Table 4.

Alongside the DPP, a wider programme of work around diabetes treatment and care will be funded to 2020, with the following key objectives:

- Improving the achievement of the NICE recommended treatment targets and driving down variation between Clinical Commissioning Groups (CCGs);
- Improving uptake of structured education;
- Reducing amputations by improving the timeliness of referrals from primary care to a multi-disciplinary foot team for people with diabetic foot disease; and
- Reducing lengths of stay for in-patients with diabetes

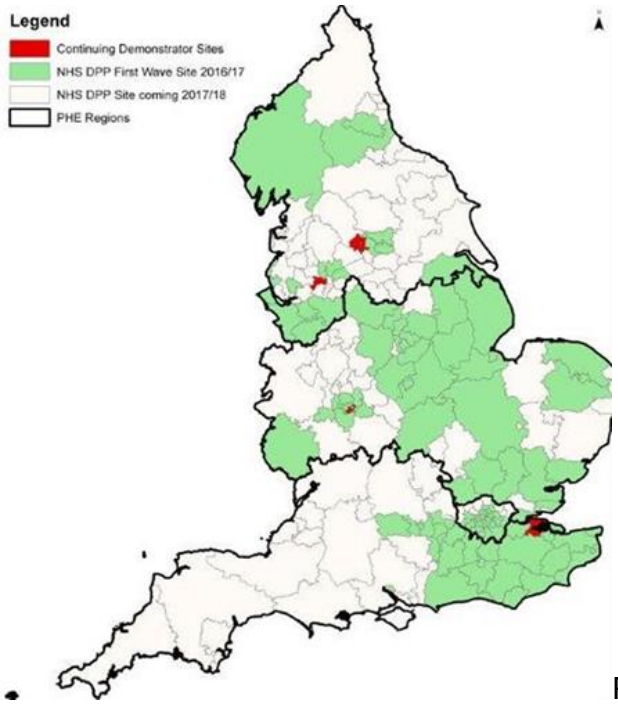


Figure 15. National Coverage of DPP at Wave 1.

Integrated Care for Diabetes

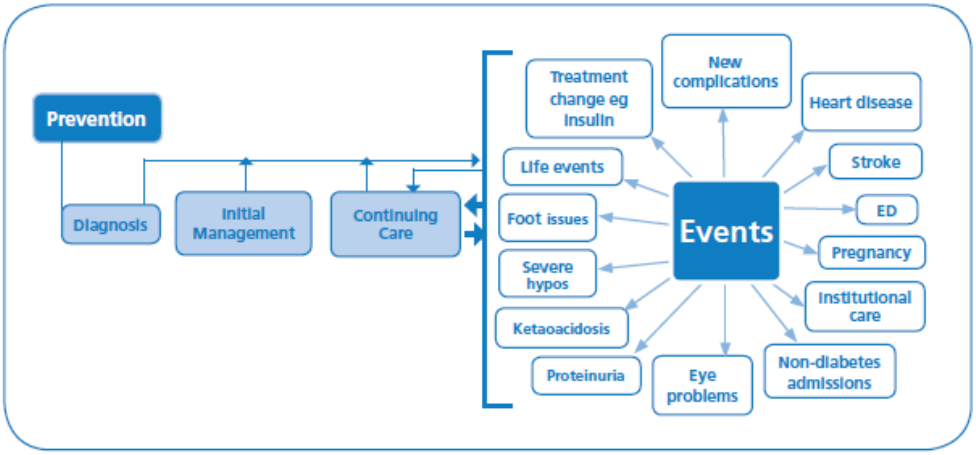
The Diabetes Prevention Programme forms the start of an integrated diabetes care pathway. (Figure 16)

The 5YFV calls for a greater focus on joining up health services, focusing on prevention to address the health and wellbeing gap. Obesity and the risk factors associated with obesity are also risk factors for type 2 diabetes. Addressing obesity is part of diabetes prevention as outlined above.

Table 4– DPP Status of STP Footprints in East of England

Footprint Name	CCG Name	CCG population (2011 ONS Estimate)	DPP Status	DPP Provider
Cambridgeshire and Peterborough	NHS Cambridgeshire and Peterborough CCG	865,225		Pulse
Norfolk and Waveney	NHS North Norfolk CCG	169,449		Pulse
	NHS West Norfolk CCG	173,040		
	NHS South Norfolk CCG	240,198		Pulse
	NHS Great Yarmouth & Waveney CCG	214,091		
	NHS Norwich CCG	196,851		Pulse
Suffolk and North East Essex	NHS Ipswich and East Suffolk CCG	397,849		
	NHS West Suffolk CCG	224,744		
	NHS North East Essex CCG	320,336		Pulse
Milton Keynes, Bedfordshire and Luton	NHS Bedfordshire CCG	433,000		
	NHS Milton Keynes CCG	265,040		
	NHS Luton CCG	210,962		
Hertfordshire and West Essex	NHS Herts Valleys CCG	582,930		Pulse
	NHS East and North Hertfordshire CCG	552,899		
	NHS West Essex CCG	297,383		
Mid and South Essex	NHS Mid Essex CCG	384,385		Pulse
	NHS Castle Point and Rochford CCG	173,683		
	NHS Southend CCG	177,931		
	NHS Basildon and Brentwood CCG	256,166		
	NHS Thurrock CCG	163,270		Pulse

Figure 16. Integrated model of diabetes care



Source: Diabetes UK

Making Every Contact Count (MECC)

NHS Trusts have a role in enabling and promoting healthy lifestyles to staff and patients. PHE and Health Education England have led the development of a suite of Making Every Contact Count resources aimed at supporting the health and care sector to implement and evaluate MECC approaches. The core definition of MECC included in the MECC consensus statement (36) endorsed by NHS England, PHE, Health Education England & the Local Government Association is as follows:

MECC is an approach to behaviour change that uses the millions of day-to-day interactions that organisations and individuals have with other people to support them in making positive changes to their physical and mental health and wellbeing. MECC supports the opportunistic delivery of consistent and concise healthy lifestyle information and enables individuals to engage in conversations about their health at scale across organisations and populations:

- for organisations, MECC means providing their staff with the leadership, environment, training and information that they need to deliver the MECC approach
- for staff, MECC means having the competence and confidence to deliver healthy lifestyle messages, to help encourage people to change their behaviour and to direct them to local services that can support them
- for individuals, MECC means seeking support and taking action to improve their own lifestyle by eating well, maintaining a healthy weight, drinking alcohol sensibly, exercising regularly, not smoking and looking after their wellbeing and mental health

The MECC consensus statement is supported by three practical resources: a MECC implementation guide, a MECC training quality marker checklist and an evaluation framework. These resources along with the evidence base, example training packages and case studies are available through the MECC website.

The MECC approach aligns with the NHS Staff Health & Wellbeing and Preventing Ill Health Commissioning for Quality and Innovation (CQUIN) schemes in NHS contracts 2017-19. MECC also supports and complements other national healthy lifestyle behaviour initiatives such as One You, All Our Health and Health Coaching.

ONE YOU campaign

One You supports national policies and programmes to tackle adult obesity and the associated increase of related conditions such as Type 2 Diabetes by giving adults a reason to believe that it's never too late to improve their health and supporting them to make changes to their lifestyle. One You can be used by NHS trusts to support staff wellbeing or as a mechanism to direct patients to think about their health and wellbeing.

To get started, people are encouraged to complete a free online quiz, called 'How Are You?' On completion of the quiz participants receive personalised recommendations about changes they could consider and points them towards tools and advice that could help them

succeed. Around 1.75 m people have completed the quiz and over 400,000 people have signed up to receive ongoing support via monthly personalised emails from One You.

You can take the quiz here and view the One You website here. Links are also listed in Appendix 2.

In spring 2017, PHE will launch a new advertising campaign from One You, which will encourage adults, particularly those with low levels of activity, to do 10 minute bouts of brisk walking as a means of reaping the health benefits associated with physical activity.

This will be an integrated multimedia campaign, appearing across TV, radio, out of home, online and social media advertising, through partners and in PR.

ONE YOU supporting Workforce Wellbeing

One You is being used by a range of employers to promote health and wellbeing in the workplace, and PHE has provided them with a free toolkit with resources and ideas to engage staff, for example, running four week team challenges. These use behaviour change techniques such as making pledges and trialling a change for 28 days in the hope that these will make new behaviours stick. Some employers are also using One You as a platform to promote NHS Health Checks.

Ministry of Defence

The Ministry of Defence is using One You to improve health and wellbeing among all service and civilian personnel over the next 3-5 years. As well as encouraging staff to take the How Are You quiz and running team challenges they have used the brand to promote moderate drinking, and are planning to use the forthcoming physical activity campaign to get civilian staff taking more exercise.

Jaguar Land Rover

Jaguar Land Rover's Lode Lane plant employs more than ten thousand people in Solihull. The Public Health team at Solihull Metropolitan Borough Council work closely with the Human Resources and Occupational Health teams at Jaguar Land Rover to provide support and One You resources via health trainers to employees at the site.

ONE YOU supporting Patient Wellbeing

National and local campaigns can be used as a platform from which healthcare and clinical professionals can start conversations with patients about making changes that could help to improve their health, whether it is losing weight or quitting smoking.

A One You toolkit for GP practices and health clinics is available from PHE. It includes a poster, leaflets and branded tape measures. These are consistent with NHS guidelines and can be used in consultation rooms as a useful tool to measure patients' waistlines and to facilitate conversations around weight loss and the risk factors associated with obesity.

In one London borough GPs are now able to refer patients into the local One You service where a Health Trainer will help them find the right support or service to facilitate their behaviour change. This one-stop shop replaces 12 different programmes designed to help patients achieve a healthy weight, reduce their risk of diabetes, or manage their diabetes. At a national level, NHS England is using One You brand, 'Healthier You', as the public face of the National Diabetes Prevention Programme.

Health Promoting Hospital

In 1990, the WHO International Network of Health Promoting Hospitals (HPH) was founded as a multi-city action plan of the WHO Healthy Cities Network. The HPH standards and strategies are based on the principles of the settings approach, empowerment and enablement, participation, a holistic concept of health (somato-psycho-social concept of health), intersectoral cooperation, equity, sustainability, and multi-strategy.(37) The Marmot Review, 'Fair Society, Healthy Lives' sets out the evidence showing that health inequalities exist within workforces and are often worsened and deepened by experiences at work.(38) The NHS is the largest employer in the country, so it is crucial that each Trust acts as a model employer and takes the lead in health promotion. This will only happen by first engaging staff and then engaging the community. The Strategy for Health Promoting Hospitals(39) recommends:

- Reviewing the Occupational Health (OH) policy with a focus on prevention and early intervention.
- Progressively increasing the rate of response to the staff survey over the next three years to reach 75 per cent cover.
- Ensuring appropriate mechanisms are in place to retain staff and improve their well-being.
- Changing induction practices to ensure focus on quality of work and improve understanding about what a difference this makes.
- Improving the psychosocial work environment.
- Dealing with bullying and harassment effectively.
- Developing the focus of Occupational Health and Human Resources towards prevention, communication, and accessibility.
- Developing an effective active travel strategy.
- Developing a healthy food strategy.
- Proactively engaging with private sector partners to improve the health and well-being of contracted staff.
- Developing and sustaining wider health promotion programmes.

Case Study from East of England

West Suffolk Hospital NHS Trust introduced a system of priority treatment referrals to a local physiotherapist for injured staff. In the first nine months of operating the system, 104 staff were referred, the number of days lost to sickness absence was reduced by 40 per cent and

the direct costs of musculoskeletal injuries to the Trust were reduced by more than £170,000. This was done at a cost of £21,000.(39)

Addenbrooke's Life is an initiative to promote health and well-being among staff at Cambridge University Hospitals NHS Foundation Trust through a varied programme of physical and non-physical activities, social events and clubs. It further provides health information and health testing, and a comprehensive weight management programme. It has a 24-page site on the staff intranet ('Connect') informing staff of events, initiatives and public health campaigns running in the Trust. These pages include step-by-step guides to healthy eating, exercise regimes and wellbeing blogs and stories. The feedback the Trust has received from staff has been excellent with very high rates of take-up of services.

Promotion and Support for Breastfeeding

In 2016, the Lancet published a series of articles that showed breastfeeding saves lives, improves health and cuts healthcare costs in every country, including the UK. (40) Yet despite the overwhelming evidence, the UK has some of the lowest breastfeeding rates in the world. The benefits of breastfeeding are clear; increased breastfeeding rates contribute to reducing health inequalities through improved outcomes for both mother and child. Financially, high rates of breastfeeding not only result in savings to family budgets, but also to the public purse due to reduced service costs. PHE's ambition is that breastfeeding is seen as normal and supported by everyone. This requires concerted action from across our communities: hospitals, workplaces, schools, parks and other public spaces and businesses to ensure that all women and feel supported to breastfeed wherever and whenever they need to. After wide consultation, in 2016 PHE and Unicef UK developed commissioning guidance to provide direction on how to make this a reality.(41) This toolkit recommends:

- Raising awareness that breastfeeding matters
    - One to one emphathetic and mother-centred antenatal conversations with midwives and health visitors
    - Antenatal classes, for all parents, that provide holistic approaches to loving and feeding babies
    - Local health promotion campaigns and education for all
- Providing effective professional support to mothers and their families
    - Every maternity unit, health visiting service, neonatal unit and children's centre should be implementing the Unicef UK Baby Friendly Initiative standards and ensuring that universities are teaching their future health professionals to Unicef UK Baby Friendly standards
- Ensuring that mothers have access to support, encouragement and understanding in their community
    - Providing mother to mother support schemes
    - Encouraging 'Welcome to Breastfeed' schemes in all public spaces, anywhere, anytime
    - Supporting employers to implement policies, practices and environments that support mothers to breastfeed during study and work

- Restricting the promotion of formula milks and baby foods
    - All maternity, health visiting, neonatal and children's centre services should implement the Unicef UK Baby Friendly standards
    - Prohibiting advertising in local authority facilities
    - Supporting trading standards teams by reporting violations of UK law in local areas.

Baby Friendly Initiative

The Unicef UK Baby Friendly Initiative is based on a global accreditation programme from Unicef and the WHO. The Initiative works with the NHS to ensure a high standard of care for pregnant women and breastfeeding mothers and babies in hospitals and community health settings. The Baby Friendly Initiative accredits health-care facilities that adopt internationally recognised best practice standards for breastfeeding. During each stage of accreditation, the initiative provides support as facilities implement standards relating to policies and procedures, staff education, effective auditing, educating pregnant women and mothers, and other relevant areas.

The Baby Friendly Hospital Initiative is a global effort for improving the role of maternity services to enable mothers to breastfeed babies for the best start in life. It aims at improving the care of pregnant women, mothers and newborns at health facilities that provide maternity services for protecting, promoting and supporting breastfeeding, in accordance with the International Code of Marketing of Breastmilk Substitutes. The criteria for a hospital's Baby Friendly accreditation include requirements for the hospital and its staff to:

- Have a written breastfeeding policy that is routinely communicated to all health care staff.
- Train all health care staff in skills necessary to implement this policy.
- Inform all pregnant women about the benefits and management of breastfeeding.
- Help mothers initiate breastfeeding within one half-hour of birth.
- Show mothers how to breastfeed and maintain lactation, even if they should be separated from their infants.
- Give newborn infants no food or drink other than breastmilk, not even sips of water, unless medically indicated.
- Practice rooming in - that is, allow mothers and infants to remain together 24 hours a day.
- Encourage breastfeeding on demand.
- Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
- Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Conclusion

Obesity is, and will remain, a challenge to the health and care system. Modern societies have created physical and social environments that nurture inactivity and over-consumption. Overweight is the new normal, as population BMI distributions shift to the right, so our perceptions adjust to accept the changes around us. In turn, workload in the NHS, demand for social care and lost productivity also increase to accommodate these population shifts.

The challenge is not to find new medicines or provide more surgery to patients, it is the population that requires treatment rather than individuals. This report has drawn together intelligence on the state of our populations and evidence on how we can effectively treat them; though what is presented here is only a snapshot of what can be done.

Sustainability and Transformation Plans offer an opportunity for colleagues in health and social care to come together and collaborate across organisational boundaries. Complex problems such as obesity provide impetus for us to keep together and success in this challenge requires us all to work together.

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Appendix 1. Local Obesity Services

Area	Tier 1 Universal services	Tier 2 lifestyle interventions	Tier 3 specialist weight management services
Cambridge-shire	Countywide Public Health Team promotion of national campaigns, e.g. Change4Life. NCMP (part of integrated lifestyles service) Behaviour change training (part of integrated lifestyles service)	Health Trainer service (GP based and community); Tier 2 Adult weight management 12 week group sessions; Tier 2 Children (7-11 years) and family weight management 10-12 week group sessions;	Tier 3 Adult weight management delivered by Addenbrookes (part of ChangePoint integrated lifestyles service).
Norfolk	**Children** ***Physical Activity interventions*** (part funded by NCC) e.g. Daily Mile, Fun & Fit Baby (see Fun& Fit info below) **Pathway to Parenting** Antenatal programme including healthy lifestyle, physical activity and nutrition **Adults** **Fun & Fit** (part funded by NCC) **–** Group physical activity(s) courses e.g. dance, swim, tennis. Programmes include: **Fun & Fit For Health** - Specific health needs to help manage long term conditions **Fun & Fit Silver** - Over	**Fit4It 4-7 Children** Group healthy lifestyle sessions with parental involvement, including physical activity, nutrition, wellbeing & behaviour change **Fit4It** Group healthy lifestyle sessions with parental involvement, including physical activity, nutrition, wellbeing & behaviour change, and alcohol for teens groups. **Adults** - **Slimming World on Referral** Vouchers allocated by Slimming World following triage and assessment. Allows access to 12 weeks of Slimming World. Group physical activity	**Children** **Norfolk & Norwich University Hospital** (non-commissioned service) (NNUH) A monthly paediatric weight management clinic. **Adults** **James Paget University Hospital** (JPUH) Healthy weight clinic, outpatient service run by the Paediatric team **Fakenham Weight Management Service (Adults)** GP led 1:1 support to Increase fruit and vegetable intake, increase physical activity and improve obesity-related comorbidity. Group physical activity

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	60's, often delivering adapted variations of physical activities **Fun & Fit Women** - Female only environment **Joy of Food** Cooking skills programme supporting people with making healthier choices for a healthier diet, and to improve people's confidence in producing affordable and healthy home cooked meals	(Fun & Fit) and physical activity training sessions for Slimming World consultants provided by Active Norfolk. **Why Weight?** (Non-commissioned service) A twelve week programme focussing on lifestyle and improving diet and physical activity behaviours. in North Norfolk CCG	sessions The service also provides educational sessions for staff comorbidity. Group physical activity sessions **WIN** GP led weight management programme to reduce weight, improve health outcomes and prevent further weight gain. Support includes dietary, physical activity, behavioural advice, measurement of weight and waist circumference and % body fat, blood testing as necessary
Central Bedfordshire	**Beezee Bodies (5-15yrs)** **BZ Chat (15-18yrs)** **Henry (2-4years)**	**Beezee Bodies Adults** **Beezeee Families** **Gutless** **Believe** **BZ Bumps**	Specialist Obesity Services Luton and Dunstable
Milton Keynes	**WhyweightMK** **Fit Fans** **Alive and Kicking** Age specific programmes for families with children between the ages of 5-18	**Your Shape**	
Thurrock		**Nat Health** **KIS** **Tai Chi for Health**	

Appendix 2. Links to One You Resources

Campaign Resource Centre: One You pages:
Information and resources hub for the One You brand
https://campaignresources.phe.gov.uk/resources/campaigns/44-one-you

One You NHS toolkit
https://campaignresources.phe.gov.uk/resources/campaigns/44/resources/1958

Conversation Starter:
A credit card sized foldout z-card designed to help health care professionals to start conversations with adults around the core One You behaviours: Eating well, moving more, being smoke free, drinking less, checking yourself, stressing less and sleeping better.
https://campaignresources.phe.gov.uk/resources/campaigns/44/resources/1634