

East Midlands
**Academic Health
Science Network**

Igniting **Innovation**

**Facilitating access to obesity services
for high risk, harder to reach groups**

**Recent learning from the
East Midlands region (UK)**

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Introduction

Increasing obesity in our population is the largest preventable cause of major disease, such as heart disease, diabetes, stroke and cancer;

- Obesity is responsible for more than 30,000 deaths each year (1).
- By 2050, 60% of men, 50% of women, and 25% of children will be obese (2).
- In the East Midlands, 66% of the population is overweight (3)

The East Midlands is a diverse region of the UK that includes 3 cities - Leicester, Nottingham and Derby, within larger rural county areas such as Derbyshire and Peak District, Lincolnshire Wolds and Rutland, and Nottinghamshire. Obesity is greater in socially disadvantaged and minority ethnic communities, making inequalities in health worse, with 20 - 30% variation in obesity rates across the East Midlands (3). Certain life events, such as pregnancy, present, particular risk of weight gain (with obesity a major adverse risk for obstetric and child health in itself), and some groups, for example, men, tend to be more reluctant to access weight management services. NICE and others (4), emphasise the importance of ensuring services are accessible, to those who need them most. However, while the majority of recommendations comment on what intervention should be delivered, there is typically less guidance or high quality evidence base on how this should be achieved in practice.

Context

Prior to 2013, NHS Primary Care Trusts were responsible for identifying and addressing health needs at a defined population level, including public health, alongside addressing health inequalities and commissioning of health services to meet local needs.

Following the Health and Social Care Act (2012)(5), local government became responsible for public health and a new body, Public Health England, with regional centres was set up in an advisory and support role - but without responsibility for delivery of public health. At the same time, newly formed Clinical Care Groups (CCGs) were expected to lead commissioning of specialist weight intervention services, while the newly formed NHS England commissioned bariatric surgery for obesity. NHS England (6) anticipated that from April 2016, CCGs would also assume responsibility for commissioning bariatric surgery, however this transfer remains in progress.

At the same time, the whole system, has faced the challenge of 'austerity Britain', with local authorities wrestling with >30% central budgetary cuts (7), and the NHS tasked with making multi-billion savings, while maintaining and developing services.

Evidence and guidelines for effective obesity prevention and care

A plethora of guidelines have been published by NICE (8-13) and other organisations (14-17) on the structure, content and delivery of obesity prevention and treatment services. The recommendations suggest that action should span from infrastructure changes that benefit the entire population through to highly specialised medical intervention. The structure is often described in terms of tiers or levels of support. Primary prevention (tier 1) includes infrastructure changes that promote a healthy lifestyle and interventions that aim to prevent weight gain by promoting a healthy lifestyle, including physical activity and healthy diet. Non-specialist weight management intervention (tier 2) uses trained advisors to provide weight loss advice to individuals who want to lose weight. Specialist weight management services ('tier 3') include the provision of support from qualified health professionals such as dietitians, nurses, psychologists. Specialist bariatric surgery (tier 4) intervention is the final element of provision.

Purpose of this briefing paper

The AHSN Why Weight project, has worked with service commissioners and other key stakeholders across the eight local authorities of the East Midlands. The aim was to understand current obesity prevention and service pathways in the region, and to facilitate further development and implementation of evidence-based obesity prevention and treatment services.

The purpose of this short briefing paper is to provide informed insight into the challenges of facilitating access to obesity prevention and treatment services for those in high risk, harder to reach groups, with emerging learning from a 'real world context' in practice .

This paper provides

- A summary of the weight related issues affecting high risk and harder to reach groups
- Commentary on the existing recommendations and best available evidence
- Case examples of response in practice from the region, with learning around real life implementation

Summary of provision in the East Midlands

A wide range of weight management programmes are commissioned in the East Midlands and at the time this work was carried out, all local authorities commissioned at least one universal multicomponent weight management intervention (18).

All weight management programmes commissioned in the East Midlands are free at the point of entry. Some service specification documents state that services must be provided in geographical locations that enable easy local access in those living in areas with high levels of deprivation and others give specific targets for the engagement of service users living in areas of high deprivation. For example, one service has a target of 60% of its users to live in the 40% most deprived areas and another has a target of obtaining 50% of its service users from the seven most deprived wards in the area served by the service. However, the provision of specialist intervention targeted at hard to reach groups is highly variable.

Gender and weight management

The challenge

Despite more men, than women, (65% of men and 58% of women) in England being either overweight or obese (3) there is evidence to suggest that more than three times as many women as men have attended local authority funded weight management programmes (19).

Evidence and Existing Recommendations

Comparatively little specific recommendation exists in national guidelines in relation to weight management for men. Several NICE guidelines (13, 20) recommend that services should take gender, along with other factors such as age, ethnicity and lifestyle into account when planning services. However, with the exception of highlighting that interpretation of waist circumference should be gender specific, with 94–102 cm being considered high and > 102 cm, very high for men (13), no specific advice on how to ensure that services are appropriate for men has been identified in national recommendations.

In 2014 a Health Technology Assessment review (21) of the quantitative, qualitative and economic evidence base for the management of obesity in men found:

- Fewer men joined weight-loss programmes, but once recruited they were less likely than women to drop out.
- The perception of having a health problem and the impact of weight loss on health problems were two of the key motivators for weight loss amongst men.

- Men were found to prefer more factual information on how to lose weight and more emphasis on physical activity programmes.
- Interventions delivered in social settings were preferred to those delivered in health-care settings.
- Programmes which were cited in a sporting context showed low drop out rates and high satisfaction.

Preferences for men-only versus mixed-sex weight-loss group programmes were divided but the report did conclude that “weight reduction for men is best achieved and maintained with the combination of a reducing diet, physical activity advice or a physical activity programme, and behaviour change techniques”. Given the similarity of this advice to non-gender specific guidelines it arguably does not facilitate identification of distinctive features of effective intervention for men. The report highlights that further research is needed to better understand how tailoring interventions and settings for men may enhance effectiveness.

Regional experience

Provision of intervention targeted at men varies across the East Midlands. Our review identified that two sites had commissioned programmes specially designed and targeted to men.

One, a football themed physical activity and healthy eating programme, has since been decommissioned due to low service uptake. The other is a men’s health club - for more details see the case study below.

One local authority includes men as one of the high risk groups that must be targeted by the universal weight management service. Our review also identified that until recently one area of the East Midlands commissioned two universal weight management services, one was from a major national provider, whose own data acknowledges that the majority of service users are women, and another that, whilst apparently being available to men, was based in a female only gym.

Case Study: Men's Health Club – a physical activity service for men

A flexible 12 month physical activity service for men who either have a BMI of 35 or above and or who are physically active for less than one hour a week. The service provides a variety of group activities, located at venues around the City, including Derby County Football Club, leisure centres and community venues. Participants are supported to increase their physical activity levels as well as manage their weight.

The following elements are strengths of the service:

- Variety - A wide selection of physical activity options are available and sessions are regularly assessed and changed based on uptake, client suggestions and availability
- Flexibility – activities run in mornings, afternoons and evenings to enable clients to fit them into their work patterns and lifestyles
- Personalised support – physical activity instructors are available at each session for clients to discuss issues and concerns on a one to one basis
- Access – the various physical activity sessions are based at venues across the City, enabling clients to access sessions at a location convenient for them
- Highly skilled instructors – REPS (Register of Exercise Professionals) level 3 or above physical activity instructors provide approachable, non-judgmental, client focused support

Pregnancy and post-natal intervention

The challenge

Obesity has a significant impact on maternal and infant health. Obese women are more likely to experience difficulty in conceiving, and when pregnant have higher rates of gestational diabetes and preeclampsia. Medical intervention during birth, for example caesarean section, is also more common in obese women (22). Transitional life stages such as pregnancy therefore present both opportunities and risks for weight management. Whilst some individuals may be highly motivated to manage their weight, incorrect perceptions about pregnancy 'eating for two' and the safety of exercising during pregnancy can lead to weight gain.

Evidence and Existing Recommendations

NICE (23) emphasises that interventions for individuals entering key life stages when they are open to change, such as pregnancy, should be prioritised, and all pregnant women should be advised that a healthy diet and being physically active will benefit both them and their unborn child (24). Community based intervention is recommended for women who have a BMI ≥ 30 and are trying to conceive, are pregnant or who are post-natal, and pregnant women with a BMI ≥ 30 at the booking appointment should be offered a referral to a dietitian or appropriately trained health professional for assessment and personalised advice on healthy eating and how to be physically active (25).

High quality evidence for preconception and antenatal weight loss intervention is lacking (25) and a review of qualitative and quantitative data on behavioural interventions for weight management in pregnancy found that even intense and tailored interventions failed to show an effect on weight gain during pregnancy (26). However other studies have shown modest reductions in gestational weight gain (1.42 kg reduction (95% confidence interval 0.95 to 1.89 kg)) in intervention compared with control and dietary intervention resulted in the largest reduction in maternal gestational weight gain (3.84 kg, 2.45 to 5.22 kg), with improved pregnancy outcomes compared with other interventions (27).

The challenge of providing effective intervention for pregnant women is compounded by reluctance on the part of health professionals to discuss weight with overweight or obese women (28) due to concerns that discussion about weight will negatively impact on women's psychological health (29).

Regional experience

Some provision for pregnant women is available in all but one local authority region in the East Midlands. This ranges from a midwife-led maternal weight management programme for obese and morbidly obese pregnant women, to a telephone triaging service for pregnant women and a pregnancy oriented weight management programme.

One service continues to support women up to 12 months after giving birth in a New Mums intervention. One county location has recently piloted a programme with midwifery services but it had limited uptake. Similarly maternal weight management services commissioned by one of the city local authorities found that poor uptake is an issue. There is currently a more physical activity orientated programme run in another part of the region but the nutrition component of this service is limited.

Instead of commissioning specialist intervention for pregnant and maternal weight management three local authorities in the East Midlands have asked their universal providers to ensure that services incorporate women before, during and after pregnancy.

Ethnic Diversity

The challenge

Obesity prevalence varies substantially between ethnic groups and there is growing evidence that biological responses to the storage of fat vary for different ethnic groups (29). This results in individuals from some ethnic groups experiencing the detrimental effects of obesity at a lower BMI than white European individuals (30). This issue is compounded by other factors, such as a tendency for BME individuals to make less use, than white British individuals, of weight management and exercise services, in addition to greater social or economic disadvantage for some communities.

Evidence and Existing Recommendations

The use of revised BMI thresholds, in the entry criteria for obesity services, for individuals from BME groups (particularly those of South Asian heritage) is recommended (30). Furthermore, NICE highlights that obesity services should take into account both the ethnicity and the cultural and religious needs of individuals when delivering weight loss interventions (10). Unfortunately there is a lack of specific recommendations on the most appropriate way to achieve this.

Regional experience

The East Midlands is an area with widely varying ethnic diversity. Leicester is one of the most diverse cities in the UK, with only 45% of Leicester city's population describing themselves as white British, in Nottingham city 34.6% and Derby city 24.7% of the population identify as belonging to a BME group (31).

In contrast, in counties such as Leicestershire 89% of the population describe themselves as white British, in Nottinghamshire 95.5% do and in Northamptonshire 91.5% do (31). Lincolnshire and Derbyshire have the lowest diversity in the region with 1.3% and 1.5% respectively identifying as belonging to an ethnic minority population (31).

Our review identified one service that was tailored to a specific ethnic minority group. The Diet, Healthy and Active Leicester (DHAL) programme, is a 10 week weight management programme for individuals of South Asian heritage.

Four universal weight management services included lower entry criteria for individuals from one or more BME group, varying from ≥ 23 to ≥ 27.5 kg/m² and three services indicated that their universal service made provision for additional support for individuals from BME groups. A further three services specification documents indicated that service should be tailored to the needs of individuals from BME groups. However, only one service specification document required provision of translation services.

Case Study: DHAL – a weight management services for individuals in the South Asian community

A 10 week health eating and physical activity programme for adults of South Asian origin with a BMI of 23 or above, or people who follow a predominantly South Asian diet with a BMI of 25 or above. The weekly group meetings provide dietary advice delivered by either a dietician or nutritionist, and physical activity led by a REPS 3 qualified instructor.

The following elements are strengths of the service:

- Culturally tailored nutritional information – dietary information is focused on South Asian culture and traditions
- Single location – dietary and physical activity service are accessed together, at the same place and time
- Fits into people's lifestyles – two sessions are run, one during the day and one in the evening
- Advance notification – participants are notified they have been allocated attendance a couple of months in advance
- Informal structure – service users are able to ask questions throughout the sessions

Disability

The challenge

Adults with both physical and learning disabilities have higher rates of obesity than adults without disabilities (32). Prevalence is particularly high in individuals with a learning difficulty, this is associated with a complex mix of behavioural, environmental and biological factors. Some genetic disorders that cause learning difficulties, such as Prader-Willi syndrome and Down's syndrome, are associated with a high risk of obesity (33, 34). Furthermore psychotropic medications, prescribed to between 30–50% of adults with learning disabilities, are also associated with weight gain. (35, 36). Furthermore, universal weight management services are not always suitable for those with a disability.

Evidence and Existing Recommendations

A systematic review of weight management interventions in adults with intellectual disabilities (37), published in 2011, highlights that there is a paucity of evidence and that many published intervention studies lack methodological rigor. The Public Health

England Learning Disabilities Observatory has produced a report entitled 'Making reasonable adjustments to obesity and weight management services for people with learning disabilities' (38) which may be useful for those planning or delivering obesity intervention to those with a learning disability.

Regional experience

Our review identified no specialist weight management services for individuals in the East Midlands with physical disability.

Only one local authority in the region commissioned a dedicated service for individuals with specialised learning needs (see case study below). In addition one service provider was asked to make reasonable adjustments to meet vulnerable peoples' needs, including encouraging individuals with specialised learning needs to attend the intervention with their carer or support worker.

One service specification requested that service providers consider an individual's 'mental ability' in all programme communication. One local authority requires their universal weight management provider to run training on healthy eating for staff working in residential facilities for people with learning disabilities.

Case Study: Liveability - a weight management service for individuals with learning disabilities

A highly flexible 12 month programme for children (aged 7-18 with a BMI of 85th centile or above) and adults (aged 19 and over with a BMI of 30 or above). The service provides 1-2-1 meetings with a specialist advisor and physical activity sessions tailored to ability. The following elements are strengths of the service:

- An active recruitment process - highly engaged advisors who are known in the field and use contacts and own effort to actively recruit clients to the service.
- A highly flexible approach - advisors can alter the location and the timing of the support to suit the needs of clients.
- Dynamic engagement of carers – carers, family and friends are encouraged to attend the healthy eating advice sessions and to take part in the physical activity sessions - particularly the weekly swimming session.
- A simple and repetitive approach to information giving – information is tailored to the learning needs of clients.
- Individualised activity plans - physical activities are based on individual ability and can include seating volleyball, boccia or new age curling.
- On-going support - where there is capacity clients are welcome to continue attending physical activity sessions even after they have completed the 12 month programme.

Conclusion

There is a lack of high quality evidence for effective intervention with high risk, harder to reach groups. Recommendations tend to be broad, highlighting the need for intervention rather than providing advice on the specifics of what interventions are of benefit. Despite this, a number of regional examples of services working to provide weight management intervention for hard to reach groups have been identified. It is encouraging that services are being developed in these areas, however, further evaluation of current services and additional research on new approaches for intervention with hard to reach groups should be a priority.

References

- 1) The Health and Social Care Information Centre (2012) Statistics on obesity, physical activity and diet: England, 2012. Available at <http://content.digital.nhs.uk/catalogue/PUB05131/obes-phys-acti-diet-eng-2012-rep.pdf>
- 2) The Stationery Office, London (2007) Foresight. Tackling obesities: future choices—project report. Available at http://www.foresight.gov.uk/Obesity/obesity_final/Index.html.
- 3) Public Health England (2015) Active People Survey (APS) excess weight for the Public Health Outcomes Framework. Available at http://www.noo.org.uk/data_sources/adult/Active_People_Survey_PHOF
- 4) Bird L, Cross-Bardel L, Ward D, and Kai J. (2015). Synthesis of UK evidence based recommendations for adult obesity prevention and treatment for service improvement and implementation: why weight? East Midlands Academic Health Science Network Obesity Programme. The University of Nottingham. Available at <http://eprints.nottingham.ac.uk/id.eprint/29881>
- 5) Department of Health (2012) Health and Social Care Act (c7). Available at: <http://www.legislation.gov.uk/ukpga/2012/7/contents/enacted>
- 6) Department of Health (2015) Arrangements for the transfer of commissioning responsibilities for renal dialysis and morbid obesity surgery services from NHS England to Clinical Commissioning Groups – Government response to consultation. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/404242/Government_Response.pdf
- 7) HM Treasury (2015) Spending review and Autumn Statement 2015. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/479749/52229_Blue_Book_PU1865_Web_Accessible.pdf
- 8) NICE (2006) Obesity: guidance on the prevention of overweight and obesity in adults and children. NICE clinical guidance 43. Available at <http://www.nice.org.uk/guidance/cg43>
- 9) NICE (2010) Weight management before, during and after pregnancy. NICE public health 27. Available at <http://www.nice.org.uk/guidance/ph27>
- 10) NICE (2012) Obesity: working with local communities. NICE public health 42. Available at <http://www.nice.org.uk/guidance/ph42>

- 11) NICE (2014) Behaviour change: individual approaches. NICE public health 49. Available at <http://www.nice.org.uk/guidance/ph49>
- 12) NICE (2014) Managing overweight and obesity in adults – lifestyle weight management services. NICE public health 53. Available at <http://www.nice.org.uk/guidance/ph53>
- 13) NICE (2014) Obesity: identification, assessment and management of overweight and obesity in children, young people and adults. NICE clinical guidance 189. Available at <http://www.nice.org.uk/guidance/cg189>
- 14) SIGN (2010) Management of obesity. A national clinical guideline. Scottish Intercollegiate Guidelines Network 115. Available at <http://www.sign.ac.uk/pdf/sign115.pdf>
- 15) Royal College of Physicians (2013) Action on Obesity: Comprehensive care for all. Report of a working party. Available at <https://www.rcplondon.ac.uk/sites/default/files/action-on-obesity.pdf>
- 16) NHS Clinical Commissioning Board (2013) Clinical Commissioning Policy: Complex and Specialised Obesity Surgery Reference: NHSCB/A05/P/a. Available at <http://www.england.nhs.uk/wp-content/uploads/2013/04/a05-p-a.pdf>
- 17) NHS England (2014) Report of the working group into: Joined up clinical pathways for obesity. NHS England. Available at <http://www.england.nhs.uk/wp-content/uploads/2014/03/owg-join-clinc-path.pdf>
- 18) Cross-Bardell L, Bird L, Ward D, Kai K, Obesity Prevention and intervention in the East Midlands. Why weight? East Midlands Academic Health Science Network Obesity Programme. University of Nottingham, February 2017. Available at <http://eprints.nottingham.ac.uk/id/eprint/40614>
- 19) Wilkins D. (2014) How to make weight-loss services work for men. Available at https://www.menshealthforum.org.uk/sites/default/files/pdf/how_to_weight_final_lr_1.pdf
- 20) NICE (2008) Identifying and supporting people most at risk of dying prematurely. NICE public health 15. Available at <http://www.nice.org.uk/guidance/ph15>
- 21) Robertson C. et al (2014) Systematic reviews of and integrated report on the quantitative, qualitative and economic evidence base for the management of obesity in men. Health Technology Assessment. Available at <https://www.ncbi.nlm.nih.gov/pubmed/24857516>

- 22) Galtier-Dereure F et al. (2000) Obesity and pregnancy: complications and cost. American Journal of Clinical Nutrition. Available at <http://ajcn.nutrition.org/content/71/5/1242s.full>
- 23) NICE (2007) Behaviour change: the principles for effective interventions. NICE public health 6. Available at <http://www.nice.org.uk/guidance/ph6>
- 24) NICE (2010) Weight management before, during and after pregnancy. NICE public health 27. Available at <http://www.nice.org.uk/guidance/ph27>
- 25) Opray N. et al. (2015) Directed preconception health programs and interventions for improving pregnancy outcomes for women who are overweight or obese. Cochrane Database of Systematic Reviews. Available at <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD010932.pub2/full>
- 26) Campbell F. et al (2011) Behavioural interventions for weight management in pregnancy: A systematic review of quantitative and qualitative data. BMC Public Health. Available at <http://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-11-491>
- 27) Thangaratinam S. et al (2012) Effects of interventions in pregnancy on maternal weight and obstetric outcomes: meta-analysis of randomised evidence. British Medical Journal. Available at <http://www.bmj.com/content/344/bmj.e2088>
- 28) Willcox (2012) Excess gestational weight gain: an exploration of midwives' views and practice. BMC Pregnancy and Childbirth. Available at <http://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/1471-2393-12-102>
- 29) National Obesity Observatory (2011) Obesity and Ethnicity. Available at https://www.noo.org.uk/uploads/doc/vid_9444_Obesity_and_ethnicity_270111.pdf
- 30) NICE (2013) Assessing body mass index and waist circumference thresholds for intervening to prevent ill health and premature death among adults from black, Asian and other minority ethnic groups in the UK. NICE public health 46. Available at <http://www.nice.org.uk/guidance/ph46>
- 31) Office for National Statistics (2012) Ethnicity and National Identity in England and Wales: 2011 Available at <https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/ethnicity/articles/ethnicityandnationalidentityinenglandandwales/2012-12-11#ethnicity-across-the-english-regions-and-wales>
- 32) Public Health England (2013) Obesity and disability – Adults. Available at http://www.noo.org.uk/uploads/doc/vid_18474_obesity_dis.pdf

- 33) Butler M. (2011) Prader-Willi Syndrome: Obesity due to Genomic Imprinting. Current Genomics. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3137005/>
- 34) Melville, C et al (2004) Obesity in adults with Down syndrome: a case-control study. Journal of Disability Research. Available at <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2788.2004.00616.x/full>
- 35) Robertson J. et al. (2000) Lifestyle related risk factors for poor health in residential settings for people with intellectual disabilities. Research in Developmental Disabilities. 21(6):469–86.
- 36) Virk S. et al (2004) Psychiatric medication induced obesity: an aetiologic review. Obesity Reviews. 5(3):167–70.
- 37) Spanos D. et al (2013) Weight management interventions in adults with intellectual disabilities and obesity: a systematic review of the evidence. Nutrition Journal, 12:132 Available at <https://nutritionj.biomedcentral.com/articles/10.1186/1475-2891-12-132>
- 38) Public Health England (2016) Making reasonable adjustments to obesity and weight management services for people with learning disabilities. Available at https://www.ndti.org.uk/uploads/files/Obesity_RA_report_final.pdf

