



Public Health
England

Protecting and improving the nation's health

Health Equity Assessment Tool (HEAT): practice example

Healthy Weight Programme
West Midlands (WMs)

Healthy Weight Programme - practice example

Programme or project being assessed	Healthy Weight Programme (annually reviewed and linked with COVID 19)
Date completed	2020
Contact person (name, directorate, email, phone)	David Elliott, Healthy Weight Lead, Public Health England West Midlands Centre: david.elliott@phe.gov.uk
Name of strategic leader	David Elliott

Steps to take	Your response - remember to consider multiple dimensions of inequalities, including protected characteristics and socio-economic differences
A. Prepare – agree the scope of work and assemble the information you need	
<p>1. Your programme of work What are the main aims of your work? How do you expect your work to reduce health inequalities?</p>	<p>The Health and Wellbeing Team (HWBT) within PHE WMs Centre works closely with local networks and national PHE groups and boards in connection with Healthy Weight. This includes identifying gaps in systems where action could be taken to address obesity.</p> <p>Applying the HEAT to the existing Programme identified the need to further prioritise:</p> <ul style="list-style-type: none"> • restoration and adaptation in light of the pandemic, including mandated programmes such as the Healthy Child Programmeⁱ and the National Child Measurement Programme (NCMP)ⁱⁱ • obesity across the lifecourse from pre-conception to older people • obesity and disparities including Black, Asian and minority ethnic (BAME), disability and mental healthⁱⁱⁱ • obesity and Integrated Care Systems (ICS) alignment including with diabetes prevention, Tier 2 services and social marketing <p>Emphasising these areas will further strengthen joint approaches to reducing inequalities in the prevalence of obesity and increase the focus on prevention.</p>

2. Data and evidence

What are the key sources of data, indicators, and evidence that allow you to identify HI in your topic?

- Consider nationally available data such as health profiles and RightCare
- Consider local data such as that available in JSNA, contract performance data, and qualitative data from local research

The following data resources were used to inform our actions:

- **tackling obesity: government strategy**
- **excess weight and COVID-19: insights from new evidence**
- **NHS Long Term Plan**
- **PHE Profiles: Obesity**
- **national Child Measurement Programme (NCMP)**
- **Better Health Campaign**

B. Assess – examine the evidence and intelligence

3. Distribution of health

Which populations face the biggest health inequalities for your topic, according to the data and evidence above?

Socio-economic status or geographic deprivation:

Poor diet is associated with obesity, and may be influenced by socio-economic status.

Experience related to protected characteristics:

Disability

There are no population-level data on obesity prevalence in people with physical disabilities.

People with learning disabilities are more likely to be either underweight or obese than the general population.^{iv} A report by the Sainsbury’s Centre for Mental Health in 2005 found that the rate of obesity among people with a learning disability was significantly different to those without such a disability (28.3% compared to 20.4%).^v

People with learning disabilities are 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.^{vi}

Obesity has been linked to common mental health problems such as depression and anxiety. A systematic review of longitudinal studies^{vii} revealed associations in both directions 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. A systematic review and meta- analysis^{viii} found a

positive but weak association between obesity and anxiety disorders. Possible risk factors affecting the direction and/or strength of the association between the 2 conditions included severity of obesity, socioeconomic status, level of education, age, sex, and ethnicity.

People with severe mental illness are at increased risk of obesity. A US study found that obesity was more prevalent in any individuals with serious mental illness (50% of women and 41% of men) than in the demographically matched comparison population (27% of women and 20% of men).^{ix} Other clinical studies have reported rates of obesity of up to 60% in people with schizophrenia or bipolar disorder. Many antipsychotic, mood-stabilizing, and antidepressant medications commonly used to treat severe mental illness are associated with weight gain.^x

In June 2013, PHE produced a briefing on obesity and disability in adults. Its key findings were:

- there is a 2-way relationship between obesity and disability in adults
- obesity is associated with the 4 most prevalent disabling conditions in the UK: arthritis, back pain, mental health disorders and learning disabilities
- one-third of obese adults in England have a limiting long-term illness or disability compared to a quarter of adults in the general population
- the prevalence of obesity-related disabilities among adults is increasing
- adults with disabilities have higher rates of obesity than adults without disabilities
- for those adults who are disabled and obese, social and health inequalities relating to both conditions may be compounded – this can lead to socioeconomic disadvantage and discrimination

Sex

In England, between 1993 and 2018 obesity prevalence continues to rise, particularly among women.

Women have generally had a higher prevalence of obesity, but the gap between men and women appears to have narrowed slightly over time. Almost 7 out of 10 women and 6 out of 10 men are now overweight or obese.^{xi}

In 2018, obesity among women in the WMs was the highest in the country – equal first with North East.^{xii} Analysis by the 2007 Foresight report – Tackling obesity: Future Choices – suggests that by 2050 60% of men and 50% of women will be obese.

Race

There is no straightforward relationship between obesity and ethnicity, with a complex interplay of factors affecting health in minority ethnic communities in the UK, although different ethnic groups have very different levels of susceptibility to becoming overweight or obese.^{xiii, xiv}

Obesity prevalence varies substantially between ethnic groups for both adults and children in the UK. Estimates of adult obesity prevalence by ethnic group seem to differ according to the measurement used (for example, BMI, waist-to-hip ratio and waist circumference).

Black African women have the highest obesity prevalence when using waist circumference as a measure, and Bangladeshi women when using waist-to-hip ratio; and Chinese men and women appear to have the lowest obesity prevalence whichever measure is used.

2007 Foresight projections to 2050 suggest Black African females and Pakistani males and females are the only minority ethnic groups that will share the trend (though slightly attenuated) for the general population. All other ethnic groups appear to be becoming less obese or becoming more obese at a slower rate than the general population.

However, evidence on international trends suggests that increasing prevalence of excess weight is a global phenomenon; it is rising across the developed countries and, increasingly, in developing countries.

Age

Among men, prevalence of overweight and obesity combined is lowest in the 16 to 24 age group, increases with age until the 35 to 44 age group and then remains steady into the older age groups.

Among women, prevalence of overweight and obesity is lowest in the 16 to 24 age group and increases to the 45 to 54 age group and then remains steady in the older age groups.^{xv}

Gender reassignment (including transgender)

There is no available evidence regarding gender reassignment and overweight and obesity.

Sexual orientation

There is no available evidence regarding sexual orientation and overweight and obesity.

	<p>Religion or belief</p> <p>There is no available evidence regarding religion or belief and overweight and obesity. Anecdotal evidence suggests that barriers, such as cultural attitudes towards acceptable forms of dress, may exist</p> <p>Pregnancy and maternity</p> <p>Many of the demographics of women who are obese in pregnancy are similar to the demographics of obese women in the general population, and reflect health inequalities. Obese women are significantly more likely to be older in pregnancy, to have a higher parity, and are more than twice as likely to live in areas of highest deprivation.</p> <p>Recent figures for 2018/19^{xvi} indicate levels of maternal obesity of 25.4% at the time of booking an appointment with the midwife compared to the England average of 22.1%.</p> <p>Maternal obesity and weight retention after birth are related to socioeconomic deprivation.^{xvii} 34% of pregnant women living in England with a BMI ≥ 35 were in the most deprived quintile, compared to 27.6% for all maternities. Other factors that appear to predispose women to maternal obesity include increased parity (number of times given birth) and increasing age.</p> <p>COVID-19</p> <p>Evidence (noted above) indicates that being overweight or living with obesity is associated with an increased risk of hospitalisation, severe symptoms, advanced levels of treatment such as mechanical ventilation or admission to Intensive Care Units and death from COVID-19. These risks increase progressively as an individual's body mass index (BMI) increases. The risk posed by being overweight or living with obesity to people with COVID-19 is relatively high and this relationship cannot be explained by factors such as age, sex or race, or other diseases. Excess weight is one of the few modifiable factors for COVID-19 and so supporting people to achieve a healthier weight will be crucial to keeping people fit and well as we move forward.</p>
<p>4. Causes of inequalities What does the data and evidence tell you are the potential drivers for these inequalities?</p> <ul style="list-style-type: none"> • Which wider determinants are influential, E.g. income, education, employment, housing, community life? 	<p>The Marmot review^{xviii} highlights that income, social deprivation and ethnicity have an important impact on the likelihood of becoming obese. There is a strong relationship between deprivation and childhood obesity. Analysis of data from the NCMP^{xix} shows that obesity prevalence among children in both Reception and Year 6 increases with increased socioeconomic deprivation (measured, for example, by the 2010 Index of Multiple Deprivation (IMD) score). Obesity prevalence in the most deprived 10% of children is approximately twice that of the least deprived 10%.</p> <p>Obesity is a complex problem with many drivers, including: behaviour, environment, genetics and culture. The main risk factors for obesity are:</p>

- Which health behaviours play a role?
- Does service quality, access and take up increase the chance of health inequalities in your work area?

Which of these can you directly control?

Which can you influence?

Which are out of your control?

1.The food and drink environment

The PHE Eatwell Guide^{xx} provides a compelling **evidence base** for eating a healthy diet, and ignoring this advice increases the chances of becoming obese. The Foresight report states that while achieving and maintaining calorie balance is a consequence of individual decisions about diet and activity, our environment, and particularly the availability of calorie-rich food, now makes it much harder for individuals to maintain healthier lifestyles.

The increasing consumption of out-of-home meals – that are often cheap and readily available at all times of the day - has been identified as an important factor contributing to rising levels of obesity.

More than one quarter (27.1%) of adults and one fifth of children eat food from out-of-home food outlets at least once a week. These meals tend to be associated with higher energy intake; higher levels of fat, saturated fats, sugar, and salt, and lower levels of micronutrients.^{xxi}

2.Physical inactivity

Put simply, we are not burning off enough of the calories that we consume. People in the UK are around 20% less active now than in the 1960s. If current trends continue, we will be 35% less active by 2030.

We are the first generation to need to make a conscious decision to build physical activity into our daily lives. Fewer of us have manual jobs. Technology dominates at home and at work, the 2 places where we spend most of our time. Societal changes have designed physical activity out of our lives.

Figures from the Health Survey for England show that 67% of men and 55% of women aged 16 and over do at least 150 minutes of moderate physical activity per week.

Only 22% of children aged between 5 and 15 met the physical activity guidelines of being at least moderately active for at least 60 minutes every day (23% of boys, 20% of girls).^{xxii}

There is little evidence that total dietary energy varies consistently across socioeconomic groups in the United Kingdom, but dietary quality does. Those living in more affluent households eat more fruit and vegetables than those living in less affluent homes, drink fewer sugar-sweetened beverages, and are more likely to consume diets associated with lower cardiovascular risk.^{xxiii}

C. Refine and apply – make changes to your work plans that will have the greatest impact

5. Potential effects

In light of the above, how is your work likely to affect health inequalities? (positively or negatively)

Could your work widen inequalities by:

- Requiring self-directed action which is more likely to be done by affluent groups?
- Not tackling the wider and full spectrum of causes?
- Not being designed with communities themselves?
- Relying on professional-led interventions?
- Not tackling the root causes of health inequalities?

Tackling health inequalities is a **cross cutting element** of PHE midlands priorities. HEAT is a key vehicle to integrate inequalities into these priorities.

Examples of outputs in relation to healthy weight include:

- PHE Midlands facilitates the landing of products and tools in local areas such as the translation of evidence into briefings and tools to assess the effectiveness (including costs) of interventions. This aims to help local authorities continue to make the case for tackling obesity
- PHE Midlands supports local areas in the delivery of social marketing campaigns such as Better Health and Change4Life. It also supports local delivery of the Start4Life and Healthy Start programmes and contributes and supports the WMs Infant Feeding Network
- working with local areas, and supported by national PHE input, we support local commissioning of weight management services, including referrals from NHS Health Checks and the NCMP. PHE Midlands, in consultation with local areas, has provided input into PHE's mapping of the provision and access to weight management services, principally Tier 2 and Tier 3, across the life course in England
- PHE Midlands re-launched part of the WMs Learning Disability and Obesity Charter that was launched through DH and other stakeholders in October 2011 (see also above)
- PHE Midlands supported Birmingham University's research project: 'from identification of childhood obesity to family behaviour change: optimising use of data from the National Child Measurement Programme'
- PHE Midlands co-sponsors events that attract a multi-faceted audience to discuss and decide actions on how community engagement can support children to be a healthy weight
- local Maternity Systems Workstream 9 planning
- WMs Healthy Start Scheme Network and uptake among local populations
- support to WMs Infant Feeding Network (breastfeeding)

This equality analysis has identified health inequalities in different groups with protected characteristics. There is, however, further potential action that can be taken in order to monitor this, to ensure that PHE's work does not create adverse outcomes, and to support local areas in achieving effective outcomes for the full breadth of their local populations.

6. Action plan

What specific actions can your work programme or project take to maximise the potential for positive impacts and/or to mitigate the

The following actions (strategic and operational) have been identified to strengthen the focus on inequalities through this programme locally:

- continue to align work on Healthy Weight with other programmes in the Centre and nationally with PHE to facilitate matrix working on the wider determinants; NHS priorities; children and young people and mental health – this will enable more integrated approaches and responses along with best use of internal resources to meet external needs

<p>negative impacts on health inequalities?</p> <ul style="list-style-type: none"> • How can you act on the specific causes of inequalities identified above? • Could you consider targeting action on populations who face the biggest inequalities? • Could you design the work with communities who face the biggest health inequalities to maximise the chance of it working for them? • Could you seek to increase people's control over their health and lives (if appropriate)? • Could you use civic, service and community-centred interventions to tackle the problem – to maximise the chance of reaching large populations at scale? • Who else can help? 	<ul style="list-style-type: none"> • identify and respond to public health, health protection, healthcare and health inequalities challenges associated with healthy weight. • maximise opportunities to use the healthy weight programme to address health inequalities through early intervention and integrated approaches, with a particular focus on groups with protected characteristics, e.g. disability. • the Health and Wellbeing leads will review the HWBT Business Plans to more accurately reflect their agenda on addressing health and social inequalities through the healthy weight programme • the HEAT has created more of a focus on the core principles that PHE stands for and has made explicit the existing health inequalities component of the healthy weight programme • this assessment will be shared with the national obesity and physical activity teams to seek their views and share this practice more widely among other regions • work findings will feed into C19 recovery and restoration planning • insights will be shared with the WMs Combined Authority as part of their development of a healthy weight framework
<p>7. Evaluation and monitoring How will you quantitatively or qualitatively monitor and evaluate the effect of your work on different population groups at risk of health inequalities? What output or process measures could you consider?</p>	<p>The following opportunities have been identified to capture outputs and success measures:</p> <ul style="list-style-type: none"> • reports to PHE Midlands Executive Team • reports e.g. deep dives on obesity to WMs Association of Directors of Public Health • through the PHE WMs Centre Health and Wellbeing Business Planning processes • project management and reporting • using the Public Health Outcomes Framework benchmarking tool and other KIT resources, ensuring that local areas continue to have access to robust data and high quality analysis in order to inform local needs assessments and decision-making • stakeholder feedback on PHE Midlands' actions and resources • continuing professional development events for wider public health workforce on obesity and inequalities • health Inequalities COVID-19 project
<p>Set a health equity assessment review date, recommended for between 6 and 12 months from initial completion. Review date:</p>	

D. Review – identify lessons learned and drive continuous improvement

<p>Date completed (should be 6-12 months after initial completion):</p>	<p>April 2017 and annually as part of business planning processes</p>
<p>Contact person (Name, Directorate, email, phone)</p>	<p>David Elliott, Healthy Weight Lead, Public Health England West Midlands Centre david.elliott@phe.gov.uk</p>
<p>1. Lessons learned Have you achieved the actions you set? How has your work</p> <p>a) supported reductions in health inequalities associated with physical and mental health?</p> <p>b) promoted equality, diversity and inclusion across communities and groups that share protected characteristics?</p> <p>What will you do differently to drive improvements in your programme? What actions and changes can you identify?</p>	<p>Please contact the project lead for further information about the review.</p> <ul style="list-style-type: none"> • application of the HEAT received very positive feedback from teams and colleagues – utilising the HEAT helped to identify areas for further improvement and development. • the Health and Wellbeing leads use HEAT as part of the HWBT Business Plans review cycle to more accurately reflect their agenda on addressing health and social inequalities • all PHE sponsored workshops on obesity/healthy weight now have a dedicated slot for health inequalities • throughout the COVID-19 response, HEAT has been recognised as a helpful framework to further accelerate work on preventing health inequalities across agencies through wider and sustained collaboration • the PHE Midlands HWBT has developed a number of projects (including healthy weight) which support the maintenance of networks and the development of delivery plans – these take common approaches around joint priorities to inform actions in the short (acute phase), mid-term (adapting to COVID-19) and longer term (stepdown phase/maintenance)

ⁱ DHSC. Healthy Child Programme: Pregnancy and the First 5 Years of Life. 2009. <https://www.gov.uk/government/publications/healthy-child-programme-pregnancy-and-the-first-5-years-of-life>

ⁱⁱ PHE. National child measurement programme. 2020. <https://www.gov.uk/government/collections/national-child-measurement-programme>

ⁱⁱⁱ PHE. COVID-19: review of disparities in risks and outcomes. 2020. <https://www.gov.uk/government/publications/covid-19-review-of-disparities-in-risks-and-outcomes>

^{iv} Emerson E, Baines S, Allerton L, Welch V. Health Inequalities and People with Learning Disabilities in the UK: 2012: Learning Disabilities Observatory.

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- ^v Samele C, Seymor L, Morris B, Cohen A, Emerson E. A Formal Investigation into health inequalities experienced by people with learning disabilities and people with mental health problems - Area Studies Report. Report to the Disability Rights Commission (DRC): The Sainsbury Centre for Mental Health. 2006.
- ^{vi} Melville CA, Hamilton S, Hankey CR, Miller S, Boyle S. The prevalence and determinants of obesity in adults with intellectual disabilities. *Obesity Reviews*. [Review]. 2007 May;8(3):223–30.
- ^{vii} Luppino FS, de Wit LM, Bouvy PF, Stijnen T, Cuijpers P, Penninx BWJH, et al. Overweight, obesity, and depression: a systematic review and meta-analysis of longitudinal studies. *Archives of General Psychiatry*. 2010 Mar;67(3):220–9.
- ^{viii} Gariepy G, Nitka D, Schmitz N. The association between obesity and anxiety disorders in the population: a systematic review and meta-analysis. *International Journal of Obesity*. 2010;34:407–19.
- ^{ix} Dickerson FB, Brown CH, Kreyenbuhl JA, Fang L, Goldberg RW, Wohlheiter K, et al. Obesity among individuals with serious mental illness. *Acta Psychiatr Scand*. 2006;113(4):306–13.
- ^x Samele C, Seymor L, Morris B, Cohen A, Emerson E. A Formal Investigation into health inequalities experienced by people with learning disabilities and people with mental health problems - Area Studies Report. Report to the Disability Rights Commission (DRC): The Sainsbury Centre for Mental Health. 2006.
- ^{xi} NHS Digital. Health Survey for England. 2018. <https://www.gov.uk/government/statistics/health-survey-for-england-2018>
- ^{xii} NHS Digital. Health Survey for England. 2018. <https://www.gov.uk/government/statistics/health-survey-for-england-2018>
- ^{xiii} National Obesity Observatory. Obesity and Ethnicity. 2011.
- ^{xiv} PHE. Excess weight and COVID-19: insights from new evidence. 2020. <https://www.gov.uk/government/publications/excess-weight-and-covid-19-insights-from-new-evidence>
- ^{xv} NHS Digital. Health Survey for England. 2018. <https://www.gov.uk/government/statistics/health-survey-for-england-2018>
- ^{xvi} PHE. Healthy Pregnancy Indicators, 2020. <https://www.gov.uk/government/statistics/healthy-pregnancy-indicators>
- ^{xvii} National Obesity Observatory. Obesity and Ethnicity. 2011
- ^{xviii} Institute of Health Equity. Fair Society Healthy Lives (The Marmot Review). 2010. <http://www.instituteoftheequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review>
- ^{xix} NHS Digital. National Child Measurement Programme, England 2018/19 School Year. 2019. <https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2018-19-school-year>
- ^{xx} PHE. The Eatwell Guide. 2018. <https://www.gov.uk/government/publications/the-eatwell-guide>
- ^{xxi} PHE. Health Matters: obesity and the food environment. 2018. <https://www.gov.uk/government/publications/health-matters-obesity-and-the-food-environment>
- ^{xxii} PHE. Health Matters: Physical Activity. 2020. <https://www.gov.uk/government/publications/health-matters-physical-activity>
- ^{xxiii} Adams J (2020) Addressing socioeconomic inequalities in obesity: Democratising access to resources for achieving and maintaining a healthy weight. *PLoS Med* 17(7):e1003243.