This publication was withdrawn on 5 November 2026

This publication has been superseded by Saving babies' lives version three: a care bundle for reducing perinatal mortality.

Public Health England

Protecting and improving the nation's health

This guidance is being reviewed and will be updated in due course. In the meantime, the current guidance should be followed.

Maternity high impact area: Supporting healthy weight before and between pregnancies



About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.

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Foreword – Professor Viv Bennett

Giving every child the best start in life is a key strategic priority for Public Health England. If we want to achieve universal health improvement for babies and children and to narrow the health gap for those who are most vulnerable, we need to work together to embed care and support for healthy conception and pregnancy through care pathways for everyone of reproductive age.

Improving prevention through individualised care pathways, with groups of women at specific or increased risk of poor outcomes, and at a population level, is key to achieving the ambitions and recommendations of Better Births and reducing inequalities in outcomes for mothers and babies.

This resource supports the drive to increase action on prevention to improve wellbeing, reduce risk and tackle inequalities from preconception through to 6 to 8 weeks postpartum and ensure every woman is fit for and during pregnancy and supported to give children the best start in life. Every woman should have access to services and support to plan a healthy intended pregnancy and advice to adopt healthy behaviours and for reducing or managing risk factors. Reducing unplanned pregnancy rates and improving heath for and during pregnancy improves individual and population outcomes and represent a significant return on investment.

These resources set out the latest evidence, guidance, resources and local practice examples for 6 key topic areas known to affect maternal and child outcomes. They aim to promote prevention across the maternity pathway by providing clear calls to action for NHS and Local Authority Commissioners, and providers and professionals including midwives, health visitors and primary care to promote a life course approach to prevention.

My thanks to the author and the team, you should be rightfully proud of your work. On behalf of PHE I am pleased to present this work to support local areas to achieve best possible outcomes

Professor Viv Bennett CBE
Chief Nurse and Director Maternity and Early Years, Public Health England

Foreword – Professor Jacqui Dunkley Bent

As England's first Chief Midwifery Officer for the NHS, I want to make sure that all women are given the right information to make safe choices that are heard and respected during a woman's life course including the preconception, pregnancy, birth and as they transition into parenthood. Consistent advice and guidance from health care professionals across the maternity pathway can make a significant contribution to the health of future generations by reducing risk before and during pregnancy. Evidence has linked the environment in the womb to the health of the baby, child and adult.

If we are to make big, long-term improvements in maternity care we need to address the inequalities that we see in society. This is as true in England as it is in the rest of the world. I want to work with groups that we inconsistently engage with such as travellers, sex workers, asylum seekers, refugees and other groups, to make sure that they receive the best maternity care possible so that their human rights are respected.

Recommendations from the National Maternity Review: Better Births are being implemented through Local Maternity Systems (LMSs) to ensure that care is personalised and therefore safer. This means that more care is provided in the community so that it is available for women that will benefit most. LMSs bring together the NHS, commissioners, local authorities and other local partners with the aim of ensuring women and their families receive seamless care, including when moving between maternity or neonatal services or to other services such as primary care, health visiting, mental health or post-natal care.

Our NHS Long Term Plan aims to support people to live longer, healthier lives by helping them to make healthier lifestyle choices and treating avoidable illness early. Our new services will help more people to stop smoking, maintain a healthy weight and make sure their alcohol intake is within a healthy limit. These behaviours are all contributing factors that can be modified before, during and after pregnancy to improve outcomes. This means working with colleagues across the health sector to ensure a person-centred life course approach for women and their families.

These documents support a system wide approach to embedding prevention across the maternity pathway. They provide the latest evidence and guidance to NHS and Local Authority commissioners and providers with the aim of promoting a comprehensive view of maternity care in England. My thanks to the team developing these documents, you should be proud of your work.

Professor Jacqueline Dunkley-Bent
Chief Midwifery Officer for the NHS

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Maternity high impact areas: overview

Why the 6 maternity high impact area documents have been developed and how they contribute to public health priorities

The maternity high impact area (HIA) documents were developed to assist Local Maternity Systems (LMS) embed prevention approaches to better support women before, during and after pregnancy through a systems life course approach.

The documents provide LMS's with the latest evidence, guidance, resources and local practice examples for the high priority topic areas known to affect maternal and child outcomes in England. Implementation of the high impact areas will help support the delivery of initiatives outlined in Better Births, the Maternity Transformation Programme and the NHS Long Term Plan.

The maternity high impact areas addressed in this publication suite are:

- improving planning and preparation for pregnancy
- supporting parental mental health
- supporting healthy weight before and between pregnancy
- reducing the incidence of harms caused by alcohol in pregnancy
- supporting parents to have a smokefree pregnancy
- reducing the inequality of outcomes for women from Black, Asian and Minority Ethnic (BAME) communities and their babies

The documents were produced between 2019 and 2020 and updated prior to publication in light of the COVID-19 pandemic. Emerging evidence from the UKOSS COVID-19 study shows the disproportionate impact of COVID-19 on Black, Asian and ethnic minority pregnant women, and overweight and obese women, highlighting the importance of a continued focus in these areas. The results are also in line with earlier MBRRACE-UK findings relating to poorer outcomes for pregnant women in these groups outside of the pandemic. The HIA reports take account of new evidence and ways of working, particularly in relation to the most vulnerable mothers and babies as part of PHE's Best Start in Life strategic priority.

These resources contribute to the strategic ambitions of NHS Universal Personalised Care Model and the Modernisation of the Healthy Child Programme. Additionally, the high impact areas reflect the needed approaches to tackle health inequalities, as outlined in the Marmot Review 10 Years On.

The high impact areas are intended to be used alongside the Healthy Pregnancy Pathway and sits within the broader All Our Health framework that brings together resources and evidence that will help to support evidence-based practice and service delivery, Making Every Contact Count, and building on the skills that healthcare professionals and others have to support women

How these documents were developed

The development of this document was led by Monica Davison (Public Health England) and Dr Ellinor Olander (Centre for Maternal and Child Health Research, City University of London) from October 2019 to March 2020. The document was reviewed by Catherine Swann, Tamara Bacchia and Alison Feeley (Public Health England) The document was systematically developed using 3 strands of evidence – academic research, current UK guidance and policy, and the experiences of those working in Local Maternity Systems. Firstly, a rapid review was conducted using Scopus and PubMed to identify international reviews and UK empirical studies published since 2014 on supporting healthy weight before, during and after pregnancy. Relevant journals not included in these databases (such as 'Journal of Health Visiting') were hand searched. Search terms included pregnancy and weight management and variations of these. Good quality evidence was ensured by only including peer-reviewed research. To be included studies had to provide information on supporting weight management before, during and after pregnancy and could be randomised controlled trials, surveys, service evaluations and qualitative studies with either women or healthcare professionals. This inclusion criteria was used to ensure focus was on practical suggestions in line with current guidelines for those working within Local Maternity Systems.

Secondly, the websites of Institute of Health Visiting, NICE, NHS England, Royal College of Midwives, Royal College of Obstetricians and Gynaecologists and Public Health England were searched to identify relevant and current reports and guidelines as well as good practice examples. The database OpenGrey was also used to identify practice examples. Examples were deemed good practice if they were in line with current guidelines and provided information on positive outcomes for women. The most recent MBRRACE (Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries) reports were also checked for relevant information.

Finally, the draft document was reviewed by topic experts, public health experts and healthcare professionals. Twenty-four representatives from Local Maternity Systems, national bodies and Public Health England also attended a review workshop in January 2020. Based on this feedback the documents were revised and further academic research was added when it had been deemed missing from the first draft. The document was subsequently reviewed by a small number of topic experts within PHE before being finalised. As such, this document benefitted from many people providing feedback, and we thank them for their time and input.

Who these documents are for and how they should they be used

These resources are for Local Maternity System professionals who wish to acquaint themselves with the latest evidence and good practice guidance on maternity priority topics in England.

The documents should be used as a guide to support the early signposting of evidence-based actions that can be practically applied according to local population needs.

Executive summary

The importance of promoting healthier weight

Tackling obesity and promoting a healthier weight is a national priority and requires a whole systems approach. Supporting women achieve and maintain a healthier weight for themselves before, during and after pregnancy and for their families is an important part of reducing childhood obesity.

Women's pre-conception health is a public health priority. National focus is needed to improve health literacy about the importance of the pre-conception period. For example, women with low health literacy are often unaware of the need to keep healthy when planning a pregnancy.(1)

Emerging evidence from the UKOSS COVID-19 study shows a disproportionate impact of COVID-19 on overweight or obese pregnant women, with 76% of pregnant women admitted to hospital with COVID-19 symptoms being overweight or obese, prompting an even greater focus for these groups.

The importance of effective outcomes relies on strong partnership working between all partners in health (primary and secondary), local authority including early years services and voluntary sector services.

This document intends to provide guidance to promote partnership approaches that assist Local Maternity Systems better support women achieve and maintain a healthier weight before, during and after pregnancy.

High impact area connections with other policy areas and interfaces

This document supports delivery of weight management services within LMSs and could be read in conjunction with Early years high impact area 4: Healthy weight, healthy nutrition. Health visitors leading to the Healthy Child Programme (2018) and All Our Health to ensure life course approach.

This document also links with numerous policy documents regarding obesity such as:

- the Marmot Review 10 Years On (2020)
- the NHS Long Term Plan (2019)
- the 'Time to solve childhood obesity' CMO special report (2019)
- the 'Whole systems approach to obesity' (2019)
- 'Childhood obesity: a plan for action' (2018)
- 'Weight management: guidance for commissioners and providers' (2017)

- ‘Better Births’ (2016)
- ‘The Health of the 51%: Women’ (2015)
- Annual Report of the Chief Medical Officer (2014)

Summary of main actions

This is a summary of main actions for LMSs to undertake in implementing prevention approaches in their work to address ‘Maternity high impact area: Supporting healthy weight’.

See sections Evidence on supporting a healthier weight and Associated tools and guidance for supporting evidence, guidance and good-practice case studies.

Frontline healthcare professionals

All women

Healthcare professionals should:

- ask women’s permission to discuss their weight using sensitive conversation guidance
- avoid making assumptions based on a woman’s weight
- confidently identify weight status in all women by sensitively assessing their BMI
- use Motivational Interviewing to engage women to make behaviour changes as outlined in ‘Let’s talk about Weight’
- make ‘Every Contact Count’ and encourage women to meet the national guidelines for healthy eating and physical activity
- discuss health benefits associated with healthy eating and physical activity
- promote the Eatwell Guide, be aware of foods women should avoid in pregnancy and explain that they should ‘eat for you and not for two’
- promote folic acid to women before and during pregnancy
- inform women that physical activity is safe during pregnancy

In addition, for women with a BMI ≥25

- sensitively raise the issue of weight with women with a BMI above or below what represents a healthy weight
- offer appropriate referral to local support such as tier 2 weight management services
- collaborate with other healthcare professionals to provide appropriate weight management support before, during and after pregnancy

Providers

- support workforce to have healthier weight conversations. Training on having a sensitive conversation regarding weight is also available via Making Every Contact Count
- provide frontline healthcare professionals of weight management services with information outlining the referral pathway, the aim of the service, location, commitment of attendance, and cost
- provide practical information to promote healthier weight including recipes and opportunities to participate in cooking classes or taste test a range of healthy foods
- for group-based services investigate the option for women to invite friends and family to sessions to overcome attendance barriers for weight management services
- signpost to other community services in the local area that provide social opportunities to promote healthier weight such as walking groups

Commissioners

- monitor pre-pregnancy BMI prevalence
- commission weight management services that are appropriate for women before, during and after pregnancy and their families
- consider including Make Every Contact Count training in service specifications to help healthcare professionals support women with weight management before, during and after pregnancy
- reduce health inequalities by commissioning services which respond to local need set against clear outcome measures, empowering providers to make service improvements
- engage with the local community, including Maternity Voices Partnership, to co-develop evidence-based services that are accessible, appropriate and not stigmatising for the local population
- provide weight management service providers with information outlining referral pathways, the aim of the service, location, commitment of attendance, and cost.

Partnership approaches to improve outcomes

This is a summary of key actions to improve partnership approaches in collaborative commissioning, effective service delivery, and professional mobilisation.

Effective collaborative commissioning can lead to a reappraisal of the serious health, social and economic impacts of weight on the wellbeing of women, pregnant and pre-pregnant, on children, on families and on the long-term health of the population.

Service delivery can be made more effective through a review of service design, investment into specialist weight management services and embedding preconception conversations into conversations across the reproductive life course.

Professionals can be mobilised to reduce the incidence of maternal weight in pregnancy through improving access to weight management clinics and training for all midwives, health visitors and other health professionals on how to start healthy weight conversations.

Collaborative commissioning

- ensure local commissioning information sharing agreements are in place across all agencies and that the Public Health Outcomes Framework indicator is reported and benchmarked by Public Health England
- integrate commissioning of services, this could include services that are available in pregnancy and subsequently after pregnancy
- contribute to and utilise data from UK Midwifery Study System(2)
- link with early years services, including children's centres

Effective service delivery

- improve access for women of childbearing age to evidence-based weight management services
- integrate IT systems and information sharing across agencies to help support women before, during and after pregnancy
- improve partnership working, for example maternity, health visiting and local community organisations and local authority services
- develop integrated pathways to include prevention and early intervention. This includes local processes to enable smooth transfer of records during transition from midwifery to health visiting and other community services
- systematically collect user experience data, for example, NHS Friends and Family Test
- provide consistent, evidence-based information to women on obesity, weight gain, healthy eating and physical activity
- regularly train healthcare professionals on supporting behaviour change related to weight, physical activity and healthy eating and how to discuss these issues sensitively and be aware of local services

Professional or partnership mobilisation

- promote multi-agency working on risk factors and root causes of obesity
- promote multi-agency training on supporting women with achieving and maintaining a healthy weight, including healthy eating and physical activity
- deliver prevention and treatment services for women and their families

Measuring success

High quality data, analysis tools and resources are available for healthcare professionals to identify the health of the local population. This can contribute to the decision-making process for the commissioning of services and plans to improve women's health and reduce inequalities. Healthcare professionals and wider stakeholders can demonstrate the impact of local support and services, this can be achieved using local measures:

Access to services

- evidence of use of up to date, evidence-based guidelines regarding care and weight management support for women of different BMI categories
- evidence of local evidence-based weight management services, pathways and policies

Effective delivery

- evidence of referral to and provision of weight management support and policies via local commissioner and provider of data
- making every contact count training for staff

Outcomes

- obesity, physical activity and healthy eating as measured in Health Survey for England.
- completeness of collection of BMI information of all women at booking.
- maternal obesity rates collected via NHS Digital's Maternity Services Dataset
- referral and uptake of local weight management services
- realistic key performance indicators for weight management services (including behaviour change, mental health and wellbeing)
- baby's first feed breastmilk.

User experience

- feedback from NHS Friends and Family Test.
- responses to NICE's questionnaire for women regarding NICE guidelines on weight management before, during and after pregnancy
- feedback and co-production from local Maternity Voices Partnership groups
- feedback from users of local weight management services

Other measures can be developed locally and could include initiatives with other stakeholders within the local maternity system.

Supporting evidence and good practice guidance

Context

Data from England shows that 46% of women start pregnancy a healthy weight (defined as Body Mass Index [BMI] 18.5 to 24.9).(3) Approximately 28% of women are categorised as overweight (BMI ≥25) and 22% of women are categorised as obese (BMI ≥30) at the start of pregnancy. Maternal obesity is associated with demographic health inequalities. For example, women from Black ethnic groups and women living in deprived communities are more likely to enter pregnancy with a BMI above that for healthy weight.(4)

Pre-pregnancy overweight and obesity is associated with numerous health risks for both woman and baby. For women, this includes an increased risk for gestational diabetes, pre-eclampsia, gestational hypertension, instrumental and caesarean birth, and surgical site infection.(5) Women who are living with obesity when they become pregnant also have poorer perinatal mental health compared to their healthier weight counterparts.(6-8) For the baby, risks include preterm birth, small-for-gestational-age, large-for-gestational-age, foetal defects, congenital anomalies and perinatal death.(5) For women with class 2 (BMI ≥35) or class 3 (BMI ≥40) obesity some of these risks are even greater.(9) These adverse outcomes may result in longer duration of hospital stay and consequently higher healthcare costs.(10) The UKOSS study on the characteristics and outcomes of pregnant women admitted to hospital with confirmed SARS-CoV2 infection in the UK reported 69% of pregnant women admitted to hospital with COVID-19 were overweight or obese.

There are also risks for underweight women (BMI ≤18.5). These risks include miscarriage(11), preterm birth and low birth weight.(12) Fertility rates are also lower in underweight women. If a woman has an eating disorder, she needs to be referred to specialist services.(13)

Gaining an excessive amount of weight during pregnancy is also associated with increased risk of hypertensive disorders,(14) caesarean delivery and large-for-gestational-age baby.(15) To reduce these risks pregnant women need to be offered support to keep a healthy diet and be physically active throughout pregnancy.(16)

Women often report struggling to return to their pre-pregnancy weight after giving birth. Approximately 20% of women with a healthy BMI in their first pregnancy were categorised as overweight or obese in their subsequent pregnancy.(17) Gaining weight between pregnancies is associated with a number of health risks in the subsequent pregnancy including gestational diabetes and large-for-gestational-age baby.(18)

The importance of local maternity systems

Better Births set out a clear vision and principles for how maternity services can be brought together through Local Maternity Systems with strong links to services to provide personalised, kinder and safer care to women and their families.

Local maternity systems are in an excellent position to oversee the provision of local weight management services and pathways. These services can be co-designed with the local population, ensuring they are accessible for all women and held in convenient locations. Services may also need to incorporate psychological support and target the family unit, not just the woman. Behaviour change interventions targeting the couple can be more effective compared to interventions targeting the individual.(19)

Local maternity systems' strategic role

Better Births recommends that on a local level, providers and commissioners should operate as local maternity systems, with the aim of ensuring that women, babies and families are able to access the services they need and choose, in the community, as close to home as possible. The purpose of a local maternity system is to provide place-based planning and leadership for transformation through:

- developing and implementing local plans to transform services
- shared clinical and operational governance to enable cross-organisational working and ensure that women and their babies can access seamlessly the right care, in the right place at the right time

Local maternity system membership

Potential membership of a local maternity system is presented in Figure 1 below, and includes service users, commissioners, providers and community groups and organisations. By bringing these stakeholders together, the local maternity systems can create shared protocols, information sharing and coherent plans to implement and apply the Better Births vision and principles to meet their population's needs.

Figure 1: Potential membership of a local maternity system

Potential membership of a local maternity system	
Service user voice	• Maternity Voices Partnerships, Healthwatch and representative parent groups where appropriate • local stakeholders and charities representing service users
Commissioners	• Clinical Commissioning Groups • NHS England • local authority directors of public health • other Local Authority as appropriate • providers
Providers	• providers of NHS antenatal, intrapartum and postnatal care including independent midwifery practices and voluntary and community sector providers involved in providing the local NHS funded maternity offer • local Neonatal Operational Delivery Network • primary care • dietetics • mental health teams, including mother and baby units, IAPT, AMHS, CAMHS • community child health and tertiary centres • local authority providers of health visitor services, children and adult social care teams and public health programmes • weight management services • leisure centres
Others	• representatives of other clinical networks, higher education establishments and teaching hospitals involved in workforce training and research • local workforce advisory boards • representatives of the staff voice, such as professional organisations and trade unions • community organisations

Using evidence to embed prevention through a community-centred approach

A place-based, or community-centred, approach aims to develop local solutions that draw on all the assets and resources of an area. This includes integrating services and building resilience in communities so that people can influence the factors that underpin good health.

The whole systems approach to obesity provides guidance on how communities can promote a healthy weight. This approach recommends mapping the local system to identify local factors (that is, food outlets, levels of deprivation, built environment, transport and so on) that may contribute to local obesity levels. For example, there are higher concentrations of fast food outlets in England's most deprived communities.

The place-based approach offers new opportunities to help meet the challenges public health and the health and social care system face. Taking a place-based approach is important when considering maternal weight and obesity(13) as obesity is not experienced equally across society.(20) Health Survey for England data shows that 38% of women living in the lowest income group have obesity, compared to 19% of women living in the highest income group.(21) This has implications not just before pregnancy but also after pregnancy as women living in low income communities lose less weight postpartum compared to women living in high income communities.(22)

Whole system approaches integrate individual, community and population interventions through multi-agency collaboration and strategic alignment of frontline professionals, providers and commissioners across universal, targeted and specialised service levels. This approach is underpinned by a place-based framework to ensure that interventions are contextual and appropriate for local population's maternity needs.

Midwives, health visitors and other healthcare professionals can build community capacity for healthy eating and physical activity by establishing or referring to community groups or services provided by the local authority.(23) This support could be available to women before, during and after pregnancy helping to create continuity of care. There is some evidence to suggest that healthy eating can be promoted to families for example via community-led cooking programmes.(24) Physical activity opportunities for women after pregnancy can be provided through community-based walking groups such as Ready Steady Mums.

Local authority leisure and community-based services can offer pregnant women and women with babies and children the opportunity to take part in a range of physical or recreational activities (see 'All Our Health Townscape for Obesity'). Activities need to be affordable and available at times that are suitable for women with older children as well as those with babies. Where possible, affordable childcare (for example, a creche) could be provided and activities be held in breastfeeding friendly locations.(25)

Healthcare professionals can provide strategic leadership at local and national level. This can include contributing to the development and improvements of policies, pathways and strategies regarding weight management, healthy eating and physical activity. At a population level, NHS digital data provides data on local pre-pregnancy overweight and obesity prevalence. This data can be used to identify local areas of need and support the development of weight management services.

Professional organisations for the public health workforce have committed to work with collaborating partners to promote the practice of healthier weight conversations through the collective and targeted use of resources, skills and knowledge to:

- raise confidence in having healthier weight conversations by upskilling and continuously supporting professionals through education and training
- increase awareness through promotion of relevant evidence-based resources

Healthy Pregnancy Pathway

The Maternity high impact area documents can be used alongside the Healthy Pregnancy Pathway. The Healthy Pregnancy Pathway is an online interactive tool that provides Local Maternity easy access to the latest maternity life-course guidance using a stepped-up service level approach, from universal to targeted and specialist care systems grounded in the community setting.

The Healthy Pregnancy Pathway uses a place-based approach through the integration with the All Our Health Townscapes.

The Healthy Pregnancy Pathway uses the following service-level descriptors across the maternity pathway (preconception, antenatal and birth 6 to 8 weeks):

Universal - Universal service is offered to all people, ensuring they receive immunisations, screenings, contraception, maternity advice, support and referral to specialist services according to need.

Targeted - Targeted service provides people with timely, personalised expert advice and support when they need it for specific issues, such as perinatal mental health, diabetes management and breastfeeding.

Specialist - Specialist service provides people specialist practitioner treatment, where providers will often work with other agencies to coordinate holistic wrap around support for people with acute or ongoing needs, including complex needs management.

Evidence on supporting a healthier weight

This section outlines the supporting evidence, guidance and good-practice case studies for 'Maternity high impact area: Supporting healthy weight'. See above for a summary of this section under the headline Summary of Key Actions.

Raising the issue of healthy weight before, during and after pregnancy

Midwives, health visitors, GPs and other healthcare professionals can support women to achieve and maintain a healthier weight before pregnancy. Examples of opportunities for when to offer this support is presented in Figure 2 below. This support needs to be offered in a woman-centred and sensitive manner(26) to avoid women feeling judged or stigmatised.(27, 28) As such this support may be best facilitated in a continuity-of-care approach.

A sensitive conversation may start with asking for women's permission to discuss their weight. This permission may be particularly important when a woman's partner or other family member is present as women may not want to discuss their weight in front of them.(29) If a woman is not ready to discuss her weight, permission can be sought to discuss it at a later appointment. Woman-centered support can be provided using Motivational Interviewing to engage women to make behaviour changes.(30) Support can also follow the Ask (identify the patients at risk), Advise (explain how best to change behaviour) and Assist (refer to obtain help) outlined in Let's talk about weight. Training on having a sensitive conversation regarding weight is also available via Making Every Contact Count.

Figure 2. Examples of opportunities for healthcare professionals to raise the issue of weight with women before, during and after pregnancy. Other opportunities, such as dental visits, remain constant throughout this period.

Before pregnancy

- cervical cancer screening
- sexual health (including contraception) consultation

During pregnancy

- when weighing women at booking or subsequent appointment
- when discussing Healthy Start, the Eatwell Guide or physical activity in midwifery appointments
- when discussing place of birth
- antenatal contact by health visitor

After pregnancy

- when seeing health visitor:
    - newborn check
    - 6-week check
    - 3-month check
    - 6 to 9-month check
    - 1-year review
    - 2 to 2.5-year review
- 6 to 8-week GP check
- child immunizations or child weighing
- breastfeeding support
- developmental check for infant or pre-school children

Referring to weight management services before, during and after pregnancy

Women expect to be told about weight management services relevant to them by their healthcare professional.(31) To help healthcare professionals refer women to appropriate weight management services they need to have up-to-date service information for their local area. Suggestions for information for providers to offer healthcare professionals for eligible women is summarised in Figure 3. To further improve referral rates, healthcare professionals may need to book the woman onto the service and receive regular reminders or visual prompts.(32)

Figure 3. Suggestions for information to provide to healthcare professionals and eligible women regarding weight management services.(33 to 35)

- explain the referral pathway
- explain the aim of the service
- highlight how eating healthily and keeping active benefits woman and baby
- provide information on the location (availability of parking, crèche and so on) and time
- clarify commitment regarding attendance expected of women
- provide information on who will be there (other women, who facilitates session and so on)
- provide information of what will happen during the session
- provide information on cost (full service and individual sessions)

Before pregnancy

GPs, practice nurses and healthcare professionals have a vital role to play in supporting women who are planning their first, second or third pregnancy to achieve and maintain a healthier weight.

For most women, this will be a healthy BMI, but for some women this means achieving the healthiest weight possible. Losing 5 to 10% of current weight could have significant health benefits and could increase a woman's chances of becoming pregnant.(28) This means considering pre-conception care as early as 1 to 2 years pre-pregnancy, which in practice, often means the postnatal period. Healthcare professionals should encourage women to check their weight and waist measurement periodically(28) (for women, a waist circumference of less than 80cm is considered low health risk(36)) or, as a simple alternative, check the fit of their clothes for signs of change.(28) Support for women with a BMI of 30 or above can include referral to tier 2 weight management services. Support could also be offered to her partner. Brief advice from GPs as well as offering, endorsing and referring to weight management services to the non-pregnant general population can be effective.(37)

Approximately 55% of pregnancies are to some extent planned,(38) meaning women may also come into contact with healthcare services through buying a fertility or pregnancy test from a community pharmacy, attending a community family planning service for removal of a contraceptive device or implant.(39) These present opportunities for giving simple written information, advice and supplies (for example, folic acid) or signpost to mobile health platforms.(39)

For unplanned pregnancies, information about weight management can be provided at for example cervical cancer screening appointments (see 'Maternity high impact area: Improve planning and preparation for pregnancy').

During pregnancy

During pregnancy, midwives and others working within maternity services can support healthy weight gain. Healthy weight gain can also be supported by health visitors during their antenatal contact with women. BMI is suggested to be calculated at the antenatal booking appointment and if clinically justified, women can be weighed regularly throughout pregnancy.(28) Regular weighing is not associated with increased anxiety or depression in pregnant women.(40) Regular weighing on its own is also not enough to influence weight gain, but can be part of weight management services.(40)

Eligible women can be signposted to Healthy Start regardless of pre-pregnancy BMI. All women, regardless of pre-pregnancy BMI should be supported by their healthcare professionals to meet the national recommendations for healthy eating as shown in the Eatwell guide. This includes promoting folic acid supplements and explaining that women do not need to eat for 2 during pregnancy. Pregnant women could also be encouraged to do strength training and be physically active building on their pre-pregnancy activity levels as described in the CMO guidelines.

Women who are above a healthy weight can sensitively be asked if they want to discuss their weight. Women can then be offered a referral to weight management services (27, 28) or a discussion regarding the benefits of healthier eating and physical activity. To maximise the uptake of weight management services; clear information about a service and a transparent referral pathway is needed (see Figure 3). For group-based services, some women report apprehension regarding attending if they do not know who else was attending.(33) This barrier can be overcome by inviting friends and family to attend with the woman.

Women who have attended weight management services during and/or after pregnancy report wanting personalised advice and help to change behaviour.(35) Women attending group-based services also strongly value the opportunities to meet other women, make friends and receive social support.(41) Although there is no one size fits all, some recommendations for content to include in weight management services can be found in Figure 4 (see also case studies for examples). If available, antenatal weight management services can also signpost to postnatal services in the local area such as walking groups (see the CAN case study).

Figure 4: Suggestions for content to include in weight management services

Weight management service content should:

- be free at the point of access
- provide opportunities for safe physical activities
- provide opportunity to set, monitor and review dietary or physical activity goals
- provide childcare
- schedule service to fit with school and nursery drop-off
- use convenient location with parking and public transport
- provide practical information including recipes and opportunities to participate in cooking classes or taste test a range of healthy foods
- offer personalised support
- signpost to other community services
- provide social support through encouraging women to invite a family member or friend
- offer tea, coffee and healthy refreshments to the women participating
- deliver service by experienced professionals who are trained to provide healthy lifestyle advice

Case study 1: Maternal and Early Years Service (MAEYS)

MAEYS was delivered on a one-to-one basis, in the woman's home, by dedicated Healthy Weight Advisors in 6 areas of the West Midlands. The service was free and available from early pregnancy until the child was 2 years old. It provided tailored advice and support with behaviour change on healthy eating, physical activity and infant feeding, along with regular weight monitoring. Eligible women had to have a pre-pregnancy BMI of 30 or above and were referred by midwives and other health professionals.

Women who took part in MAEYS reported that the home visits were convenient, with helpful personal advice on diet and physical activity and weight monitoring provided by the Healthy Weight Advisors.(35) Women suggested more frequent contact and practical support such as recipes would improve the service. The mean weight gain at 38 weeks was 7.27 kg and approximate cost per family was £256.(42)

Some women who declined the service did so partly due to feeling offended by the referral.(34)

Case study 2: Community Activity and Nutrition Programme (CAN)

CAN is based on the UPBEAT intervention and has been offered to women living in the Lambeth Early Action Partnership (LEAP) area since 2016. CAN was one of the centres of the UPBEAT RCT which was led by Eugene Oteng-Ntim and Nina Khazaezadeh. The intervention was subsequently tailored to meet the needs of the LEAP population.

CAN focuses on supporting pregnant women with a BMI of 25 and over to change their behaviour in relation to dietary intake and physical activity, through an eight-week service run by health improvement facilitators in the second trimester of pregnancy. The programme encourages women to keep healthy diets, focusing on low glycaemic foods, and be physically active through tailored information and goal-setting. The service is available through groups, one-to-one settings and email and is delivered in Children's Centres and women's homes. Walking groups are also part of the offer. All women are also offered an oral glucose tolerance screen for diabetes. Postpartum women can receive continued support through the walking group. The women are also signposted to other LEAP diet and nutrition programs, including the Breast-Feeding Peer Support Service. All eligible women are recruited by telephone and text by the CAN team, which consists of midwives and health improvement facilitators. Women report high satisfaction with the service. .

After pregnancy

Midwives, health visitors and GPs have a vital role to play in supporting postnatal weight management. This support can include an opportunity to discuss a woman's weight, and signpost to local tier 2 weight management services.(28) This discussion can help women have a realistic expectation of the time it will take to lose weight gained during pregnancy.(28) It may also be important in preparation for subsequent pregnancies, as up to two-thirds of women may gain weight between pregnancies.(43) The appropriate timing for attending weight management services will vary between women, thus services need to be available throughout the postpartum period. For example, when Slimming World was available to women 6-18 weeks postnatally only 47% of women attended at least one session.(44)

The recent physical activity guidelines encourage postpartum women to engage in at least 150 minutes of moderate intensity physical activity, starting gradually after the birth of their baby. Women are also recommended to do muscle strengthening exercises 2 times a week.(45)

All women also need to be supported to breastfeed. Women who are living with obesity have low breastfeeding rates.(46) Breastfeeding can reduce the risk of childhood obesity so is important to support to reduce the risk of future obesity.

Associated tools and guidance

Information, resources and best practice to support frontline health professionals, providers and commissioners working in Local Maternity Systems

Intelligence toolkits and outcomes frameworks

Relevant indicators can be found in the Pregnancy and Birth Profile in the Child and Maternal Health section of PHE's Fingertips Platform. These indicators are presented in a standardised format showing trends over time, local benchmarking and relevant inequalities. This profile will be enhanced to include the new indicators which are under development and to provide a downloadable report (stocktake of progress) against the high impact areas.

Good practice examples

- Community Activity and Nutrition Programme (CAN). Lambeth Early Action Partnership, accessed March 2020
- Active Mothers: moving away from Obesity Through Healthier Lifestyle Exercise Relaxation and Support in Bexley. NICE local example, 2016
- Buggy Boot Camp. Accessed April 2020
- The Bloom Project, promoting healthy lifestyle in pregnancy for women living in Wiltshire. Accessed December 2019
- Maternal and Early Years' Service. accessed March 2020
- Mums Zone. Berkshire, accessed December 2019

Policy

- Better Births. Improving outcomes of maternity services in England. A Five Year Forward View for maternity care. National Maternity Review, 2016
- First 1000 days committee report and Government response. UK Parliament, 2019.
- Healthy Child Programme: Pregnancy and the first five years of life. Department of Health and Social Care, 2009
- Healthy Lives, Healthy People: A call to action on obesity in England. Department of Health, 2011
- Healthy start. accessed December 2019
- MBRRACE-UK: Saving Lives, Improving Mothers' Care Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2015-17. National Perinatal Epidemiology Unit, 2019
- National Maternity Transformation Programme. NHS England, 2016
- NHS Long-term Plan. NHS England, 2019.
- Time to solve childhood obesity: CMO special report. Department of Health and Social Care, 2019.

Guidance

- Adult weight management: short conversations with patients. Public Health England, 2017
- Adult weight management: commission and provide services. Public Health England, 2017
- Better for women report. Royal College of Obstetricians and Gynaecologists, 2019
- Childhood obesity: a plan for action. Department of Health and Social Care: Global Public Health Directorate: Obesity, Food and Nutrition, 2018
- Child and maternal health data and intelligence: guide for health professionals. Public Health England. 2019
- Clinical Guideline: Overweight, Obesity and Contraception. Faculty of Sexual and Reproductive Healthcare of the Royal College of Obstetricians and Gynaecologists, 2019
- Early years high impact area 4: Healthy weight, healthy nutrition. Health visitors leading to the Healthy Child Programme. Department of Health and Social Care, Public Health England, 2018
- Health matters: reproductive health and pregnancy planning. Public Health England, 2018
- Health matters: whole systems approach to obesity. Public Health England, 2019
- Health visiting and midwifery partnership – pregnancy and early weeks. Department of Health and Social Care and Public Health England, 2015
- Heathier weight promotion: Consistent messaging. Public Health England, 2018
- Healthy beginnings: applying All Our Health. Public Health England, 2019
- Preconception care: making the case. Public Health England, 2019
- Promoting healthy weight in children, young people and families. Public Health England, 2018
- The relationship between dental caries and body mass index. Public Health England, 2019
- Weight management: guidance for commissioners and providers. Public Health England, 2019
- Weight management interventions: standard evaluation framework. Public Health England, 2018
- Whole systems approach to obesity. Public Health England, 2019

NICE guidance

- Antenatal care for uncomplicated pregnancies. NICE clinical guideline [CG62], 2019
- Behaviour change: general approaches. NICE Public Health guideline [PH6], 2007
- Behaviour change: individual approaches. NICE Public Health guideline [PH49], 2014
- BMI: preventing ill health and premature death in black, Asian and other minority ethnic groups. NICE Public health guideline [PH46], 2013
- Maternal and child nutrition. NICE Public Health guideline [PH11], 2014
- Obesity prevention. NICE Clinical guideline [CG43], 2015
- Obesity: identification, assessment and management. NICE clinical guideline [CG189], 2014
- Obesity: working with local communities. NICE Public health guideline [PH42], 2017

- Physical activity: brief advice for adults in primary care. NICE Public health guideline [PH44], 2013
- Physical activity: exercise referral schemes. NICE Public health guideline [PH54], 2014
- Physical activity: walking and cycling. NICE Public health guideline [PH41], 2012
- Physical activity and the environment. NICE guideline, [NG90], 2018
- Preventing excess weight gain. NICE guideline [NG7], 2015
- Weight management: lifestyle services for overweight or obese adults. NICE Public health guideline [PH53], 2014
- Weight management before, during and after pregnancy. NICE Public Health guideline [PH27], 2010

NICE pathways

- Diet. NICE pathway, accessed October 2020
- Lifestyle weight management services for overweight or obese adults overview. NICE pathway, accessed October 2020
- Maternal and child nutrition overview. NICE pathway, accessed October 2020
- Obesity. NICE pathway, accessed October 2020
- Obesity: working with local communities. NICE pathway, accessed October 2020
- Physical activity. NICE pathway, accessed October 2020

Research

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