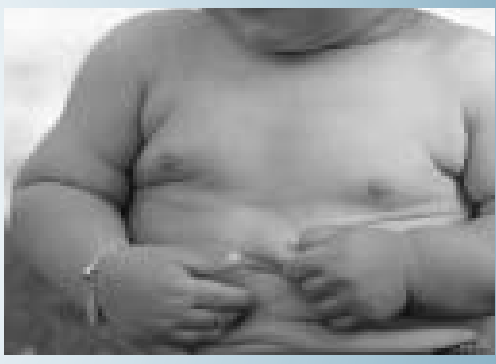
OBESITY CARE PATHWAY

Support Package

MATERNAL OBESITY

Workbook





PHAST Public Health Action Support Team

Community Interest Company: A Social Enterprise Organisation

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OBESITY CARE PATHWAY
Support Package

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What is the support package?

Public Health Action Support Team (PHAST) has developed a new interactive resource to support Primary Care Trusts (PCTs) to develop, implement, and evaluate effective obesity care pathways. The new resources, commissioned by the Regional Public Health Group for London (RPHG), focus on adults, child and maternal obesity.

The support package aims to:

- Guide users through a systematic process of initiating, developing, implementing and evaluating obesity care pathways to ensure they are robust, evidence based and focused on local needs;
- Assist users with reviewing and strengthening existing pathways; and
- Provide opportunities to learn from the experiences of other London PCTs in the form of case studies.

The support package is made up of the following components:

- Three workbooks: adult, child, and maternal obesity.
- One interactive video providing a step-by-step guide to developing obesity care pathways. The workbooks and interactive video complement each other and at appropriate stages within the video, users are asked to refer to the relevant sections within the workbooks.
- Downloadable templates with editable regions, which users can populate with local information.
- Case studies from London PCTs are used throughout the workbooks and video to illustrate important issues.

This document represents the workbook for maternal obesity care pathways. It is one part of the support package that you can download and use alongside the interactive video, which walks and talks you through the key stages in generating your pathways.

The target audience: the support package is intended as a practical and concise resource to help those working at a local level who are responsible for developing and reviewing obesity pathways, and commissioning associated weight management services. It is primarily for those working in PCTs although local partners who are involved in the process (e.g. leads in acute trusts and local authorities) will also benefit from using the package.

To view the interactive video and download an electronic workbook and copies of templates, please go to www.healthknowledge.org.uk

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Why has the support package been produced?

Obesity is a significant public health challenge facing the UK. It is estimated that currently two-thirds of adults and a third of children are either overweight or obese and unless effective action is taken the rates will continue to escalate with almost nine in ten adults and two-thirds of children predicted to be overweight or obese by 2050[1]. The prevalence of obesity in pregnancy has also increased from 9–10 per cent in the early 1990s to 16–19 per cent in the 2000s[ii]. Without action, obesity-related diseases will cost an extra £45.5 billion per year.

Primary Care Trusts (PCTs) are expected to develop strategies that include both preventative measures and services that manage those that are already overweight and obese. In particular, there is a need for the identification of overweight and obese children and adults and subsequent management including referral into weight management services.

A care pathway is often defined as a way of ensuring care or support:

- for the right people;
- in the right place;
- at the right time;
- by doing the right thing;
- with the right outcomes; and
- focused on the needs of the child and family/adult.

(Healthy Weight Healthy Lives: Commissioning weight management services for children and young people, 2008)[ii]

An effective obesity care pathway is therefore a framework or tool that should achieve the following:

- ensure local implementation of national guidance and evidence;
- ensure that services are aligned with local need;
- reduce variations in the quality of care;
- provide an equitable service for all users; and
- provide a framework for ongoing monitoring and evaluation of the weight management services and whole-system of obesity services.

Effective obesity care pathways (adult, child and maternal) are therefore required within local areas in order to improve the delivery of services for adults (including pregnant women) and children who are overweight and obese.

Use of the support package by PCTs will improve consistency and standardisation of pathways and the pathway generation process across London, and increase effectiveness and efficiency by reducing pressure on financial and human resources.

Obesity Care Pathway Cycle of Phases

There are four key phases involved with the systematic method of generating obesity care pathways:

- Phase 1: Initiation
- Phase 2: Development
- Phase 3: Implementation
- Phase 4: Evaluation

Within each of the phases there are key steps as illustrated in the cycle of phases. The process should not be considered linear and often two or three steps will need to take place in parallel. The workbook will work through each of the steps systematically and in a logical order, whilst highlighting when steps should be considered and completed at the same time as each other.

A timeline has also been put together to provide an overview of the obesity care pathway process. This provides estimated delivery times and should be considered as a guide.

Both the cycle of phases and timeline are generic and should be used in the generation of any of the obesity care pathways: adult, child or maternal.

In addition, generation of a pathway relies upon effective 'Stakeholder Engagement'. A detailed section on stakeholder engagement is, therefore, provided within the support package.

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Obesity Care Pathway Cycle of Phases

Stakeholder Engagement

Phase 1: Initiation – starting up the process of generating the pathway by specifying the aim and objectives, and agreeing key resources, taking into account the national and local situation.

Phase 2: Development – drafting and finalising the obesity care pathway based on need, demand and supply.

Phase 3: Implementation – applying and putting into practice the finalised obesity care pathway.

Phase 4: Evaluation – judging the value of the pathway and assessing to what extent it achieved what it set out to do and benefited the overweight and obese local population.

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Obesity Care Pathway Timeline

Timeline is an estimate and is dependent upon the local situation of each PCT.

PHASE AND STEP	MONTH																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Phase 1: Initiation																		
Step1 Identify a strategic lead and a project Lead																		
Step 2 Summarise key national and local policy drivers																		
Step 3 Estimate local need for obesity services																		
Step 4 Estimate local costs of obesity																		
Step 5 Agree key resources																		
Stakeholder Engagement																		

PHASE AND STEP	MONTH																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Phase 2 Development*:																		
Step1 Map current service provision (supply)																		
Step 2 Review the evidence-base and best practice																		
Step 3 Review need, supply and demand (comparative analysis)																		
Step 4 Reconfigure services to meet the need																		
Step 5 Draft and finalise pathway																		
Step 6 Identify training requirements																		
Step 7 Sign off pathway																		

* The length of time for development is highly dependent upon the results of the local needs analysis and the degree of service reconfiguration that needs to take place i.e. whether commissioners decide to commission new services, develop existing services, or both. The procurement process can vary from a few weeks to 12 months depending on the scale and complexity of the intervention or services being procured.

PHASE AND STEP	MONTH																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Phase 3: Implementation																		
Step1 Plan and organise launch and training events																		
Step 2 Design and print pathway																		
Step 3 Launch final pathway																		
Phase 4: Evaluation																		
Step 1 Monitor and evaluate pathway																		
Step 2 Revise and improve pathway																		
Step 3 Disseminate the findings																		
Step 4 Continue to monitor																		
Step 5 Make plans to sustain pathway																		

Phase 1: Initiation

Definition: the initiation phase is the first phase in the obesity care pathway process. It involves starting up the process of generating the pathway by specifying what the process aims to accomplish and how it will achieve the objectives, by taking into account the current national and local situation.

During the initiation phase, the project initiator (usually the PCT obesity lead) will summarise the key policy drivers, estimate local health need, make the case for funding and resources, and designate the obesity care pathway lead. It is crucial to conduct the key steps in this phase prior to beginning to develop the pathway.

There are five steps within this phase:

1. Identify a strategic lead and a project lead
2. Summarise key national and local policy drivers
3. Estimate local need for obesity services
4. Estimate local costs for obesity
5. Agree key resources

Step 1: Identify a strategic lead and a project lead

Strategic lead

The obesity care pathway process requires a multi-agency approach with all key stakeholders engaging and working together effectively. In order to coordinate activity successfully across a range of sectors it is advisable to identify a strategic lead that will have overall leadership of the project, for example, the Assistant/Associate Director of Public Health or PCT Obesity Lead. The strategic lead will act as an advocate and should help to ensure that all stakeholders commit to the process. High-level buy-in is therefore required to get cooperation from resistant stakeholders, to help sign off the pathway, ensure recommendations are carried out in practice, and it is helpful if the strategic lead chairs the obesity care pathway group meetings.

Project lead

Designate an obesity care pathway project lead who will complete all of the phases and steps within the care pathway process with support from the stakeholders. The obesity care pathway project lead will need to understand the broader national obesity policy agenda and the local context in which the pathway is being developed and implemented i.e. have an understanding of the local maternity services. They will, therefore, need the necessary knowledge, skills and expertise to coordinate the successful delivery of the project.

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Step 1

The obesity care pathway project lead may be an internal or an external person. An internal project lead is an existing employee of the PCT in a post that has a remit to undertake obesity related projects and programmes, for example, the PCT Obesity Lead or a junior member of the obesity team. In comparison, an external project lead is not an existing employee and is usually appointed specifically to complete the obesity care pathway project on a time-limited contract. There are advantages and disadvantages to identifying an internal or external obesity care pathway lead to undertake the project as outlined in table 1.1 below.

Table 1.1: Advantages and Disadvantages of an Internal and External Project Lead

Lead	Advantages	Disadvantages
Internal	• An understanding of the organisational context already exists. • Organisational relationships already established. • No additional financial resources required to fund the post.	• Potential lack of necessary internal skills, expertise and techniques in developing obesity care pathways. • Lack of internal capacity for undertaking the project and opportunity costs with other work. • May be undertaking the work as part of another role – competing work priorities. • May be viewed as biased when trying to initiate change.
External	• Brings breadth and depth of expertise in skills, knowledge and techniques in generating obesity care pathways which are not available within the organisation. • Provides additional capacity for the project for organisations with a lack of available human resources. • May have access to a broad range of expertise and resources in addition to that which they themselves can offer. • Detached objectivity to change process as may be seen as unbiased when trying to initiate changes in service delivery.	• Lack of understanding of organisational context and time required to understand this and build relationships. • Need to recruit or commission the post and allow the lead to demonstrate the transferability of their skills and experience – longer time period before work commences and ensuring the right person is employed. • Financial resources required to fund the post.

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If an external obesity care pathway lead is recruited or commissioned to undertake the project, a number of issues need to be taken into consideration.

1. An external lead will need good internal support mechanisms and to be linking closely to the senior management responsible for the delivery of the work programme in particular a named internal lead, who is preferably at a senior level.
2. Ensure that a project brief is agreed for the role they are to undertake with clear aims, objectives and timescales.
3. Plan an exit strategy for when the project is complete. This should involve a hand over of responsibilities and transfer of knowledge to ensure that the obesity care pathway work is maintained.

Step 2: Summarise key national and local policy drivers

It is advisable to produce a summary of the key national and local publications, polices, and guidance, including targets, that relate to obesity. This will be used in reports and papers outlining the case for additional or ongoing resources (human and financial). The resources section of the workbook includes a list of websites for key organisations which may provide useful information.

Maternal obesity has received far less of a focus nationally compared to childhood and adult obesity. More recently, however, the Confidential Enquiries into Maternal and Child Health (CEMACH) publications have increased the profile of obesity during pregnancy by highlighting the links between maternal weight status and maternal and neonatal deaths. Table 1.2 provides a summary of the key CEMACH reports. Please note that CEMACH is now the Centre for Maternal and Child Enquiries (CMACE). Maternal obesity has other significant health implications and is associated with pregnancy complications during the pre-conception and antenatal, intrapartum and postnatal phases as outlined in table 1.3.

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Step 2

Table 1.2: Summary of key CEMACH reports

Management of Women with Obesity in Pregnancy (CMACE/RCOG Joint Guideline March 2010)[ii] The Guidance covers recommendations for interventions prior to conception, during and after pregnancy.
Saving Mothers' Lives (CEMACH December 2007)[iv] Confidential enquiry into maternal deaths in the United Kingdom to make motherhood safer found that more than half of all women (for whom BMI had been recorded) who died in 2003 – 2005 were either overweight or obese. More than 15% were morbidly or super morbidly obese.
Why Mothers Die (CEMACH December 2005)[v] Confidential enquiry into maternal deaths found that approximately 35% of women who died (for whom BMI had been recorded) 2000–2003 were obese.
The CEMACH Perinatal Mortality 2005 report[vi] Found that approximately 30% of the mothers who had a stillbirth or a neonatal death were obese.
The CEMACH Perinatal Mortality 2007 report[vii] Found that maternal obesity is associated with an increased risk of stillbirth and neonatal death. It should be recognised that BMI itself is not causative for stillbirth or neonatal death and there will be a number of associated factors including maternal social deprivation and specific co-morbidities.

Table 1.3: Health implications of maternal obesity for mother, father and baby

Pre-conception	• Menstrual disorders (e.g polycystic ovarian syndrome), • Infertility • Increased risk of miscarriage • Early menarche in overweight or obese adolescent girls means they reach reproductive capacity earlier leading to increased rates of maternal obesity within young people
Antenatal	• Gestational diabetes • Pregnancy-induced hypertension or pre-eclampsia NB. Obesity during pregnancy is considered a high-risk state because there is a greater risk of adverse reproductive health outcomes, compared to normal weight status
Perinatal	• Caesarean section • Infections (genital, urinary tract, and wound) • Birth defects (e.g. spina bifida, omphalocele, heart defects) • Venous thromboembolism • Large for gestational age or macrosomic neonate who is in turn at an increased risk of subsequent childhood obesity and its associated morbidity
Postnatal	• Retention of gestational weight gained with each pregnancy and reduced likelihood of breastfeeding. • Children born to obese mothers are more susceptible to obesity in adolescence and adulthood otherwise known as the conveyor belt effect

Increased rates of obesity related morbidity and mortality are reflected in increased social and financial costs.

Obesity in pregnancy has been selected as CMACEs principal project with a maternal health focus for 2008–2011. The main aims and objectives of the obesity project are to determine:

- The prevalence of obesity (BMI of ≥35) in pregnancy in the UK;
- Whether health care services in the UK are appropriately organised for the care of pregnancy women who are obese; and
- Whether standards of care for obesity in pregnancy are being met and what the outcomes are for women and their babies who do/do not have these standards met.

The completed project is due by March 2011.

Despite the plethora of policy and publications available on tackling overweight and obesity in adults and children (see the support packages for adults and children), information on managing maternal obesity is needed.

The Government has sent a clear signal that enabling individuals to make healthy choices and to maintain a healthy weight remains a priority at all stages of life.

Step 3: Estimate local need for obesity services

There are a number of sources of data that should be collated in order to estimate the local prevalence (need) for obesity services. This is particularly important for making the case for the generation of obesity care pathways.

Compared to adult and childhood obesity, at present there is limited national data on the prevalence of maternal obesity. The estimated prevalence of adult obesity, however, can be used to approximate the number of obese women of childbearing age ('childbearing age' is usually defined as being between the ages of 15 and 44 years) in your borough. Using a specified age range avoids misleading information although a small number of births to women outside this age range can and do occur. See estimating local need in support package on adult obesity care pathway. The prevalence of childhood obesity, using the National Child Measurement Programme (NCMP) data can be used to predict future rates of maternal obesity by forecasting that the rising levels of childhood obesity are very likely to impact negatively on future levels of maternal obesity as overweight and obese children reach childbearing age. See estimating local need in support package on child obesity care pathway.

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Fertility rate can also be reported for your borough. There are many measures of fertility referring to the level of reproduction of a population, based on the number of live births that occur, have occurred or are expected to occur. When dealing with births data, fertility is normally measured in terms of women of childbearing age.

It is worth contacting your local acute trusts to see whether any audits have been conducted. This may enable you to analyse the following:

- the levels of BMI recording for women i.e. those women who have had their height, weight recorded and BMI calculated at booking;
- of those measured, the percentage of women in each BMI classification (e.g. underweight, healthy weight, obese); and
- the outcome measures for women (e.g. gestational diabetes, caesarean delivery) by BMI classification.

Produce a summary report outlining the current estimated prevalence of maternal obesity in your borough and make comparisons with other boroughs (where data is available).

It may also be of benefit to review the DH social marketing insight work. The purpose of this research was to better understand the behaviours that can lead to obesity (diet and activity), and so future ill health, and to understand which behaviours are common within different groups or clusters in society. This 'segmentation' analysis showed that children aged 2–11 years and their families could be divided into six clusters based on their behaviours. Of these, three clusters were found to be most 'at risk' of developing obesity (Cluster 1: 'Pressured Parents', Cluster 2: 'Inexperienced Parents', and Cluster 3: 'Treater Parents') and these three clusters were found to have the highest rates of adult and child obesity. As a result of the research, these three groups have been prioritised for national action within the national social marketing programme. The three 'at risk' clusters can also be used by local areas to better target interventions to promote healthy weight, leading to more effective interventions and use of public resources.

Step 4: Estimate local costs of obesity

It is also important to estimate local costs of obesity to the NHS. The NICE public health guidance on weight management before, during and after pregnancy is supported by the following implementation tools available on the website www.nice.org.uk/guidance PH27[viii]:

- a national costing report;
- A self assessment tool to support local planning.

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One particular study by Galtier-Dereure et al (2000)[ix, x] suggests that for obese women the cost of hospital antenatal care is about five times than the average. It is worth including literature searches on the cost of maternal obesity during the Development Phase – Step 3: Review the evidence base and best practice.

Step 5: Agree key resources

The resources required for the obesity care pathway process will be different for each of the phases. Table 1.5 provides a summary of the resources required at each phase. It is critical to address fundamental resource issues at the initiation phase of the project although the level of financial resource will in part depend upon the results of the mapping of current service provision during the development phase. Produce a summary spreadsheet using the template provided (see *Appendix A*) and update this as you progress through each phase of the obesity care pathway process.

Table 1.4: Summary of key resources required during each phase

Development Phase	• **Personnel** This includes both the capacity and capability of human resources. Personnel will include the obesity care pathway project lead (see section on identifying an obesity care pathway project lead) and the time contributed by all of the stakeholders engaged in the process. • **Investment in service provision** Financial resources will depend upon the current service need, supply and demand. Estimated need was already completed during Step 3 of the initiation phase and estimating demand and supply will be completed during the development phase. The results will identify whether additional funding is required for the commissioning of new services or provider development of existing services or whether funds can be obtained from the de-commissioning of an existing service. Investment at this stage may be difficult to estimate.
Implementation Phase	• **Personnel** Personnel during the implementation phase will be similar to those involved at the development phase. The time contributed by each stakeholder will vary depending on his or her level of contribution. For example, those stakeholders who assist with training and hosting the launch events will be significantly involved at this phase compared to other stakeholders. • **Training** The amount of resources required for training will depend upon the level of training required for successful implementation and whether an external training provider is commissioned or if the training is delivered 'in-house' (see section training requirements for implementation). All training and launch events will require trainers, a venue, refreshments, and printed resources.

continued

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Step 5

Table 1.4: Summary of key resources required during each phase (continued)

Implementation Phase (cont)	• **Marketing and advertising** Financial resources are required for marketing and advertising the pathway. Links should be established with communications departments to ensure that the pathway and associated weight management services are featured in PCT, LA and acute trust newsletters. • **Publications** This includes the design and printing of pathways and supportive resources. Financial costs could be reduced or eliminated by designing or printing 'in-house'. • **Equipment** It might be necessary to purchase new equipment for weighing and measuring adults although these should be available within GP practices and acute trust.
Evaluation Phase	• **Personnel** The time required to complete this phase will depend upon the methods chosen to evaluate the pathways, the availability of data and internal support offered within the PCT (e.g. data analysis by health information team). Additional costs will be required if the PCT decides to commission an external evaluator to conduct a formal evaluation. See section on monitoring and evaluation. Personnel time will also be necessary for continued marketing and advertising, support for health and non-health care professionals using the pathway, reviewing and revising the pathway (links to the evaluation phase). • **Training new staff and top-up training for existing staff** This is required for those frontline staff who are using the pathway. It will depend upon the turnover of staff as a high turnover will require frequent training days to ensure all new staff are trained in using the pathway and conducting a brief intervention. Top up training is necessary for those frontline staff that have already attended a previous training event but need a refresher course. It seems sensible to consider providing some form of annual top up training or rolling training programme. • **Publication** Improvements and revisions to the pathway will mean that updated versions of the pathway will need to be printed.

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Step 5

Box A identifies the potential barriers that PCTs may encounter when generating obesity care pathways. It is helpful to be aware of any potential barriers that can arise because being aware of the barriers means that preventative measures can be put in place prior to the issue arising or known actions can be taken to alleviate the problem.

Box A: Potential barriers and methods to alleviate the problems that can arise when generating obesity care pathways include:

Inadequate Funding

Inadequate funding to cover the financial resources required during the development, implementation, and monitoring and evaluation phases will prevent delivery of the pathways. Ensure that financial resources are discussed and agreed during the initiation phase and after the comparative analysis has been conducted during the development phase. Firstly, make the case for generating the pathways (see Initiation Phase) and make the case for additional funding, if necessary (see Development Phase). If funding is limited, however, there are a number of areas where financial resources can be restricted: agree an internal project lead, design and print the resources 'in-house', and provide training 'in-house'. Prioritise funding for the commissioning and delivery of obesity services and consider de-commissioning and commissioning services for a more efficient use of limited funds.

Insufficient Service Provision

Insufficient obesity services need to be counteracted by the commissioning of new services or redesign of existing services. Review the effectiveness and cost-effectiveness of existing services and identify whether de-commissioning a particular service may enable a more cost-effective service to be implemented. In addition, during the mapping exercise, unknown existing services may be identified that can be utilised more effectively and included within the pathway.

Limited Capacity or Capability of Staff

If internal staff have limited capacity and capability and funding is available consider employing an external project lead to complete the project. If funding is not available internal staff will need to be drawn on but expect that the project may take longer to deliver. The internal project lead may need more support from senior members of staff (e.g. Assistant/Associate Director of Public Health) and it may be helpful for them to draw on the expertise of other PCTs/LAs that have successfully developed and implemented their own pathways.

The workforce capacity and capability of frontline staff involved in the implementation of the pathways may also be highlighted as a problem, for example, by the midwives, health visiting teams, GPs and primary care teams. Ensure that training is organised for all relevant frontline staff to enable them to feel confident at identifying and treating overweight and obese pregnant women and overweight and obese women trying to conceive (see Step 6: Training requirements). The increasing need to work with and provide support for families with weight problems will impact on capacity and it may be necessary to discuss these issues within workforce development commissioning. In addition, a number of local areas have incentivised primary care in the form of Local Incentive Schemes/Local Enhanced Services (LIS/LES) to identify and manage overweight and obese adults. These can include incentives for maternal obesity.

continued

Step 5

Box A: Potential barriers and methods to alleviate the problems that can arise when generating obesity care pathways include (cont):

Inadequate Senior Level Support

Lack of support at the senior level can impact negatively on the process because senior members of staff help agree funding streams, increase the profile of obesity and the pathway, and engage stakeholders (especially those that resist being involved). Ensure that a senior strategic lead, who is motivated about tackling the obesity agenda, is identified and assists with overcoming obstacles.

Resistance by Stakeholders

Some stakeholders might resist being involved with the obesity care pathway project. Although senior level support can assist with trying to engage all stakeholders, some health and non-health care professionals may not contribute to the pathway generation process. In such cases it is helpful to identify an advocate for the work who may have a considerable impact on those stakeholders who are not contributing to the process. For example, a Consultant Midwife or Consultant Obstetrician who is committed to the obesity agenda should be significantly involved in the process of pathway generation as they are respected by other frontline staff.

It is inevitable that each PCT/LA will encounter other barriers that have not been mentioned above. It is helpful to share this learning with other local areas by recording and disseminating the barriers and lessons learnt.

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Phase 2: Development

Definition: the development phase is the second phase in the obesity care pathway process. It involves drafting and finalising the obesity care pathway based on need, demand and supply.

During the development phase, the obesity care pathway lead will assess the current service provision whilst reviewing the evidence, and analyse the information in order to identify gaps and duplications of services. This information will then be used to agree service reconfiguration in the form of future commissioning/de-commissioning or provider development of existing services. The final versions of the pathway needs to be signed off and training requirements for successful implementation of the pathway need to be discussed.

There are seven steps within this phase:

1. Map current service provision (supply)
2. Review the evidence-base and best practice
3. Review need, supply and demand (a comparative analysis)
4. Reconfigure services to meet service need
5. Draft and finalise the pathway
6. Identify training requirements
7. Sign off the pathway

Before each of the above seven steps are outlined in more detail there is a short section on stakeholder engagement.

Stakeholder Engagement

Stakeholder engagement is critical at a number of steps within the initiation, development, implementation, and evaluation phases of the obesity care pathway cycle. The following section covers four key components of stakeholder engagement:

- Who to engage;
- When to engage;
- Method of engagement; and
- Key questions to ask when engaging.

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Who to engage

Begin the stakeholder engagement process by mapping the key internal and external stakeholders – identify all those people and organisations that have something to gain or lose through the outcomes of the obesity care pathway project. The stakeholders identified will depend upon the pathway that you are generating and although some stakeholders will be common across all three pathways (adult, child and maternal), a number of stakeholders are specific to only the maternal pathway.

Maternal obesity care pathways will include women of childbearing age ('childbearing age' is usually defined as being between the ages of 15 and 44 years) in the borough. Using a specified age range avoids misleading information although a small number of births to women outside this age range can and do occur. The pathway should therefore include the following periods: pre-conceptual, antenatal, and postnatal. There are a number of health and non health care professionals involved with a woman throughout this time period. The maternal obesity care pathway will need to be linked to both the adult and child pathways.

Table 2.1 provides a summary of key stakeholders. The table has been separated into two columns (primary/community care, and acute care) in order to take account of the fact that maternal obesity incorporates both settings. This should not be considered an exhaustive list as each PCT may identify other key stakeholders and need to tailor the checklist to their local area.

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Table 2.1: Key Stakeholders for Maternal Obesity Care Pathway

Maternal 15-44 years although there will be a small number of births to women outside this age range)	
Primary/community care	**Acute care**
PCT Obesity Lead	Public Health Consultant Midwife/Consultant Midwife
Assistant/Associate Director of Public Health	Obstetrician
Public Health Strategists – Early Years and Maternity Services	Dietitian
Head of Health Intelligence/Information	Psychology
Adult and Maternity services commissioning lead	Physiotherapy
Acute commissioning lead	Midwives with specialist interests in obesity/diabetes
Head of Health Promotion	Anaesthetist
General Practitioner	Fertility specialist (Assisted Conception Unit)
Head of Dietetics	Maternity Services Liaison Committee (MSLC)
Dietitian specialised in obesity, weight management, diabetes	Bariatric surgery consultant
Clinical Psychologist (adults)	Gynaecologist
Physiotherapist/Sports and Exercise Medicine	
Community midwife	
Practice Nurse	
Head of Children's Centres	
Head of Health Visiting	
Infant Feeding Coordinator	
Health Trainer Programme Manager	
Prescribing/pharmacy/medicines management	
Professional Executive Committee (PEC) representatives	

continued

Table 2.1: Key Stakeholders for Maternal Obesity Care Pathway (continued)

Maternal (cont) 15-44 years although there will be a small number of births to women outside this age range)	
Practiced Based Commissioning (PBC)	
Physical activity coordinator	
Local Authority/Sport and Leisure Provider	
Managers of specific local obesity programmes (voluntary and community organisations)	
PCT Social Marketing lead	
Public health dental health consultant/strategist	
RPHG obesity lead	
External providers of obesity services	
Head/Director of Procurement	
Head/Director of Finance	
Commissioning Support for London (maternity services)	
Other stakeholders (please specify)	

Please note that it may also be useful to engage with service users (e.g. overweight and obese women trying to conceive and overweight and obese pregnant women) who will be able to provide feedback on their experiences of existing service provision and recommendations for the development of any new services/adaptations to existing services.

The table demonstrates that there is a broad range of stakeholders ranging from senior/ strategic staff to local frontline staff, commissioners and providers, community/primary and acute-based. In addition, there are duplications in the types of stakeholders across settings e.g. it is important to engage the community and acute based midwives, and the community and acute based dietitians. Furthermore, there may be more than one acute trust that you will need to engage with. It is also important to note that some stakeholders will be involved through the whole pathway (preconception, antenatal, postnatal) (e.g. GP) whilst other stakeholders will only be involved at a specific phase (e.g. midwife during the antenatal and postnatal phases).

Turn to the stakeholder checklist template (*Appendix B*) and complete it for your area. Place the name of the stakeholder in your area next to the stakeholder title. It may be necessary to populate this table with the help of other stakeholders during the engagement process. Furthermore, whilst you are engaging with stakeholders you may find that additional stakeholders are identified.

Stakeholder analysis is a technique used to identify and assess the influence and importance of key stakeholders.

- **Influence:** the power which stakeholders have over a project – to control what decisions are made, facilitate its implementation, or exert influence which affects the project negatively. Examples include: the command and control of budgets, authority or leadership, or possession of specialist knowledge.
- **Importance:** the priority given to satisfying stakeholders' needs and interests through the project, especially those stakeholder interests that converge most closely with the project objectives.

A matrix is constructed on which each stakeholder is plotted relative to his or her influence and importance in relation to the obesity care pathway process. The level of influence and importance of each stakeholder may change throughout the process and at different phases of the project. See the *Appendix C* for four stakeholder analysis templates; one for each phase. Complete these for your local area.

When to engage

Engagement with stakeholders is required throughout all stages of the pathway process; it should be considered cyclical and NOT a linear process. The cycle of phases at the start of the document highlights that stakeholder engagement is critical at all phases and steps.

Method of engagement

Stakeholder engagement is the process of effectively eliciting the knowledge, expertise, views, and recommendations of all stakeholders throughout the obesity care pathway process. There are a number of different methods that can be used; some methods will be more appropriate for certain stakeholders and other methods will be more appropriate for different phases of the pathway process. A summary of engagement methods and the advantages and disadvantages of each method are outlined in table 2.2. As you progress down the table the engagement methods become less intense and time-consuming.

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Stakeholder Engagement

Initially, it is advisable to set up an **Obesity Care Pathway Group**. From this point onwards the group will be referred to as a steering group to ensure consistency of terminology but local areas may choose to use different terminology such as 'working' or 'advisory' group. The steering group should include all of the key stakeholders although it is likely that not all of the stakeholders will be able to attend the steering group meetings and other methods of engagement will be necessary.

Table 2.2: Methods of stakeholder engagement

Method of engagement	Advantages	Disadvantages
Steering group meetings	• Less time consuming than individual meetings. • The opinion of one stakeholder may trigger ideas from another stakeholder. • Able to run group creativity sessions to generate a large number of ideas for a solution to problems encountered. • Able to reach agreement on actions and next steps for each stakeholder (minutes can be produced as a record)	• Not all stakeholders will be able to attend the meetings. • The level of contribution from each stakeholder will depend upon the group dynamics and an imbalance can result in 'group think' or alternatively high-level conflict. • Need to maintain focus in order for actions to be agreed.
Small group meetings (e.g. sub-groups of the steering group)	• More likely all members of the groups to be able to attend. • Able to discuss and work through specific issues • Likely to be more focused than the steering group meetings.	• Disagreement across small groups. • Poor communication leading to misunderstandings.
One-to-one meetings (either face-to-face or over the telephone). NB In both cases stakeholders should be able to view a copy of the draft pathway throughout the conversation.	• Good for obtaining a detailed understanding of each stakeholder's involvement (i.e. mapping of services) and recommendations for the layout of the pathway. • Able to understand specific issues and recommendations • Builds rapport and commitment with each of the stakeholders	• Time consuming for both the obesity pathway lead and the stakeholder. • Conflicting views. • Lack of cohesion. • The final decisions made may not reflect those of all stakeholders and therefore cause disaffection.

continued

Table 2.2: Methods of stakeholder engagement (continued)

Method of engagement	Advantages	Disadvantages
Emailing	• Good for circulating drafts of the pathway to all stakeholders and keeping everyone informed. • Can be kept as records of the pathway process.	• Non-response by stakeholders when requesting feedback. • Lack of total commitment due to other pressures. • Unable to build rapport and potential for misunderstanding.

It is acknowledged that certain stakeholders may choose not to engage in the pathway generation process. Every effort should be taken to contact and involve everyone using a variety of methods but should stakeholders be unwilling to be included (for example, due to time constraints) a colleague should be identified to cover the stakeholder (e.g. Deputy Head of Dietetics covering the Head of Dietetics). In addition, it is advisable to identify senior level champions for maternal obesity in both the community and acute setting, for example the Associate/Assistant Director of Public Health, and a Public Health Consultant Midwife or Obstetrician with a specialist interest in obesity. This is beneficial for improving engagement, raising the profile, assisting with overcoming barriers and driving the project forward (see Phase 1: Initiation – Step 1: Identifying a strategic lead).

Key questions to ask when engaging with stakeholders

The type and number of questions to discuss will vary with each individual stakeholder and at which stage of the process the stakeholder is contacted. *Appendix D* provides a generic topic guide of key questions. Please note that not all of the questions will be relevant for all of the stakeholders; questions may need to be omitted or adapted.

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Step 1: Map current service provision (supply)

The mapping exercise involves conducting an audit of local obesity and maternity services, programmes and projects. The care pathway will extend across the community, primary, secondary and tertiary care, and thus a broad range of services involving a number of different health and non-health care professionals need to be recorded.

In order to accurately map the services, complete the following:

1. Stakeholder engagement – consultation with the stakeholders identified during the stakeholder mapping exercise is crucial for this part of the process. See *Appendix D* for the key questions that can be asked in order to extract the relevant information.
2. Identify and obtain copies of local strategy documents (e.g. obesity, food, physical activity, breastfeeding and weaning, maternity services, and social marketing), service level agreements (SLAs), and quarterly monitoring reports from provider services. This will provide some information on existing services but stakeholder engagement will still need to be conducted to confirm the accuracy (strategies and SLAs are often out-of-date) of the information, obtaining their views on the effectiveness of current service provision, and recommendations for future commissioning and service re-design for the future pathway. Furthermore, data may be able to be extracted from provider databases to assist with assessing the effectiveness of existing services.
3. Conduct a more detailed evaluation of any existing services, where necessary. This may be required when there are existing services in place and evidence of their effectiveness needs to be assessed (particularly for decisions around future funding).

The information gathered should be recorded. See *Appendix E* for a template for mapping the current service provision.

Step 2: Review the evidence-base and best practice

Pregnancy is increasingly becoming a critical time for tackling obesity. Firstly, it is important to prevent maternal obesity by ensuring women are a healthy body weight and helping them lose weight prior to conceiving or receiving assisted reproduction. Secondly, women who are already overweight or obese pregnant should receive tight monitoring of weight gain during pregnancy and healthy weight and overweight women should be helped to avoid excessive weight gain during pregnancy. Lastly, following up and supporting women after they have given birth to assist them with reaching a healthy weight. It should also be recognised that pregnancy offers a unique window of opportunity because women may be particularly receptive to behavioural change prior to conceiving and during pregnancy

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on behalf of their unborn children. The positive changes in lifestyle benefit the women, their unborn children and potentially their whole family. For example, studies have suggested that obese mothers (even if they do not develop diabetes) may adversely programme their offspring in utero for greater obesity in later life[viii].

There are two national clinical guidelines available in the UK with regard to clinical care in obesity and pregnancy.

- NICE has published Public Health Guidance on 'Dietary interventions and physical activity interventions for weight management before, during and after pregnancy'[viii].
- The Royal College of Obstetrics and Gynaecology (RCOG) launched a joint RCOG/CMACE[ii] guideline for the 'management of women with maternal obesity' in March 2010. The guideline includes national consensus standards based on best available evidence and expert opinion, developed for the Centre for Maternal and Child Enquiries (CMACE) 'Obesity in Pregnancy' project using formal consensus techniques.

Table 2.3: Summary of NICE guidance and recommendations that relate to the management of maternal obesity

Dietary interventions and physical activity interventions for weight management before, during and after pregnancy (PH27)[viii]	Six detailed recommendations include advice on: • How to help women with a BMI of 30 or more to lose weight before and after pregnancy – and how to help them eat healthily and keep physically active during pregnancy. • How to help all pregnant women eat healthily and keep physically active. • The role of community-based services. • The professional skills needed to achieve the above.
Fertility: assessment and treatment for people with fertility problems (CG11)[xi]	**Initial advice to people concerned about delays in conception** • Women who have a body mass index of more than 29 should be informed that they are likely to take longer to conceive. • Women who have a body mass index of more than 29 and who are not ovulating should be informed that losing weight is likely to increase their chance of conception. • Women should be informed that participating in a group programme involving exercise and dietary advice leads to more pregnancies than weight loss advice alone. • Men who have a body mass index of more than 29 should be informed that they are likely to have reduced fertility. • Women should be informed that female body mass index should ideally be in the range 19–30 before commencing assisted reproduction, and that a female body mass index outside this range is likely to reduce the success of assisted reproduction procedures.

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Table 2.3: Summary of NICE guidance and recommendations that relate to the management of maternal obesity (continued)

NICE Antenatal Care (CG62)[xii]	• Pregnant women with a BMI greater than 30 usually require additional care. GPs and midwives should care for women with an uncomplicated pregnancy and obstetricians and specialist teams should be involved where additional care is needed. • First contact with a healthcare professional should include giving specific information on lifestyle. • Booking appointment (ideally 10 weeks) should include measuring height and weight and calculating BMI. Specific information on nutrition, diet and exercise should be provided. • Repeated maternal weighing should NOT be routinely recommended.
NICE Maternal and Child Nutrition (PH11)[xiii]	**Women who are pregnant (or who may become pregnant)** • Provide information on the benefits of a healthy diet and give practical, tailored advice on how to eat healthily throughout pregnancy. Address any concerns women may have about their diet. • Inform women with a BMI over 30 about the increased risks to themselves and their babies. Encourage them to lose weight before becoming pregnant or after pregnancy. • Provide a structured, tailored programme of ongoing support that combines advice on healthy eating and physical exercise and addresses individual barriers to change. • Refer pregnant women with a BMI over 30 to a dietitian for assessment and advice. • Do not recommend weight-loss during pregnancy. **Supporting mothers who are feeding babies (up to 6 months old) during the postnatal period** • Encourage mothers with a BMI over 30 to lose weight and offer a structured programme of support that combines healthy eating and physical activity. Advise those who are breastfeeding that losing weight by eating healthily and taking regular exercise will not affect the quantity or quality of their milk.

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Table 2.4: Summary of the CEMACH report and the recommendations that relate to the management of maternal obesity

	Relevant Recommendations
Pre-conceptual care	• Pre-conceptual counselling and support, both opportunistic and planned, should be provided for all obese women of child-bearing age. This especially applies to women prior to having assisted reproductive technologies (ART). Where possible, obese women should be helped to lose weight prior to conception or receiving any form of ART. • Pre-pregnancy counselling and weight loss, together with wider public health messages about optimum weight to help reduce the number of obese women becoming pregnant. • This is supported by baseline and auditable standards: (Number and % of pregnant women with pre-existing medical conditions for whom specialist pre-conception counselling is offered at April 2008 and end 2009). (Number and % of pregnant women at booking, or women attending for ART or pre-pregnancy counselling who have their BMI calculated and noted. Target 100% by April 2008).
Development of National guidelines	• Guidelines are urgently required for the management of the obese pregnant women because of the increasing prevalence of obesity in the UK, the risks of maternal death among pregnant obese women and other aspects of care (e.g. difficulties of prenatal diagnosis, enhanced risk of gestational diabetes, increased chance of caesarean section, challenges of analgesia and anaesthesia).
Action checklist for midwifery care	• The BMI of all women should be recorded and a plan of care should be developed for women with severe obesity (BMI 35+). These women are unsuitable for midwifery only care.
General Practice Recommendations	• GPs should record the BMI of pregnant women and those contemplating pregnancy, and should counsel obese women before and during pregnancy regarding weight loss or healthy eating. • Women with obesity care not suitable for GP/midwifery-led care because their pregnancies are higher risk should be referred for specialist care because of possible co-morbidity.

The US Institute of Medicine (IOM) produced revised guidelines in 2009 (table 2.5)[xiv]. The draft NICE guidance, however, states that it is unable to support the use if these guidelines without more evidence and information about their applicability to the UK population.

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Table 2.5: New recommendations for total and rate of weight gain during pregnancy by pregnancy BMI (Adapted from the Institute of Medicine[xiv]).

Pregnancy BMI	BMI (kg/m2) (WHO)	Total Weight Gain Range (lbs or kg)		Rates of Weight Gain* 2nd and 3rd Trimester (Mean Range in lbs/wk or kg/wk)	
		lbs	Kg	Lbs	kg
Underweight	<18.5	28-40	12.7-18.1	1 (1-1.3)	0.45 (0.45-0.59)
Normal weight	18.5-24.9	25-35	11.3-15.9	1 (0.8-1)	0.45 (0.36-0.45)
Overweight	25.0-29.9	15-25	6.8-11.3	0.6 (0.5-0.7)	0.27 (0.23-0.32)
Obese (includes all classes)	>30	11-20	5.0-9.1	0.5 (0.4-0.6)	0.23 (0.18-0.27)

** Calculations assume a 0.5–2kg (1.1-4.4 lbs) weight gain in the first trimester.*

Although the current evidence for the effective prevention and management of maternal obesity is limited new research is continually being published, for example, the RCOG/CMACE[ii] guidelines, and NICE guidance for weight management in pregnancy have recently been published[viii]. It is, however, always helpful to conduct a literature review to identify relevant published articles. The National Library for Public Health (search using 'obes* OR overweight') is helpful to use at this stage www.library.nhs.uk/publichealth.

Finally, obtain copies of examples of existing obesity care pathways. When constructing your own local pathway it can be helpful to review existing pathways that have been developed by other PCTs. In addition, it may be useful to consider working with other local PCTs and acute trusts to generate sector maternal care pathways. It may also be helpful to obtain information on the obesity budgets for local PCTs and the allocation of funds for maternal obesity. This will allow you to conduct some degree of benchmarking.

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Step 3: Review need, supply, and demand (a comparative analysis)

At this stage, it is helpful to return to the estimation of need that was conducted in the initiation phase. Estimate the number of obese women of child bearing age and obese pregnant women who are overweight and obese that 'need' obesity services in your borough and compare with the number of obese women of child bearing age and obese pregnant women that can receive ('supply') the service. Evidently, need is likely to exceed supply and demand must also be taken into account when planning health services.

A comparative analysis is conducted once the mapping process and review of the evidence base are complete. It involves comparing the current service provision with the evidence base (for example, NICE 'Dietary interventions and physical activity interventions for weight management in pregnancy and after childbirth'[viii], and the RCOG/CMACE[ii] guideline for the 'management of women with maternal obesity' and other reviews that you may have obtained during your literature search). This process identifies the gaps (and duplications) in service provision and will facilitate the identification of under-provision, adequate, or over-provision of services. The level of priority can then be assigned to each gap and future investment can be prioritized according to local needs and service requirements.

Appendix F provides a template for conducting the comparative analysis. This has been produced in a format that reflects the levels required within an obesity care pathway. During the analysis it is also helpful to begin to map in a diagrammatic format the referral routes between and across the services at all levels of care (i.e. community, primary, secondary and tertiary care).

At this stage it is advisable to use the good-quality local intelligence that has been gathered to produce a local report or paper for discussion, which summarises the mapping of current obesity services, the gaps and duplications in service provision, and recommendations for future service provision (consider adding the populated templates for mapping and comparative analysis as appendices). This can be used for agreeing additional funding if required. The report should be taken to the strategic lead and steering group for discussion.

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Step 4: Reconfigure services to meet service need

This section involves agreeing the next steps required to fill the gaps and remove the duplications in service provision in order to provide an adequate and equitable provision of services at all stages of the pathway of care for overweight and obese pregnant women. This will depend upon the local situation; some areas may choose to redesign or expand existing services whilst other areas may choose to commission new services (and de-commission existing services).

One case study is provided within this section to illustrate one approach to the development of a maternal obesity care pathway. When developing a maternal obesity care pathway it is important to recognise the links with other pathways and packages of care for other related conditions (e.g. gestational diabetes) and national/local programmes (breastfeeding/infant feeding).

Commissioning and procuring new obesity interventions and services

Local areas can commission a range of weight management services to meet different need. The use of independent and third sector providers to provide NHS-funded services is becoming more and more widespread and PCT commissioners are expected to select and use providers who are best placed to deliver cost-effective and high-quality services. It may be necessary, therefore, to consider commissioning new obesity interventions for any stage/tier of the pathway. The choice of programme will depend upon a number of factors including: the age-range of the pathway, stage/tier of the pathway, feasibility of implementation within the borough, and resources available.

Once the obesity lead and strategic lead (and stakeholders who will include representatives from the local authority, acute trust and other partners) are clear on the intervention(s)/service(s) that need to be commissioned the next step is to procure those interventions and services.

For any procurement route, there are three key stages of procurement as outlined in table 2.6. The time required to undertake a procurement can vary greatly depending on the size and complexity of the intervention or service being procured (from a few weeks to 12 months for larger scale procurements).

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Table 2.6: Three Key Stages of Procurement

Stage 1: Pre Procurement	Stage 2: Procurement	Stage 3: Contract Management
• Health needs assessment and planning	Procurement strategy and plan	Service transition and mobilisation
• Development of service specifications	Advertise	Full service commencement
• Consultation	Prequalification Questionnaire (PQQ)	Ongoing Contract Management (including performance management of providers)
• Stimulate market	Memorandum of Information	
• Strategic/outline business case including affordability exercise	Issue ITPD/ITT tenders	
• Build a project team	Dialogue/negotiations Select preferred providers Sign contract	

In 2008 DH produced a guide to support local areas in commissioning weight management services for children and young people. The guide aims to help commissioners improve health outcomes for children and young people. See Healthy Weight Healthy Lives: Commissioning weight management services for children and young people (2008)[iii]. Even though the guide was produced for the commissioning of services for overweight and obese children, the principles and guidance are equally as applicable for the commissioning of obesity services for maternal obesity (although care should be taken to adapt the relevant sections of the tool to ensure it is aligned with maternal obesity services e.g. the use of BMI at booking for pregnant women as a measure of obesity instead of centiles as used for children).

The guide summarises the three overarching stages or phases of activity:
Phase 1: Needs assessment and strategic planning;
Phase 2: Shaping and managing the market; and
Phase 3: Improving performance, monitoring and evaluating.

Tools are included in the guide and are grouped under the three phases outlined above. For example phase 2 includes a tool designed to support local areas in developing service specifications for weight management services for children and young people.

At present, a few PCTs and acute trusts have developed their own 'home grown' initiatives or worked with national programmes, for example, 'Slimming World for Pregnant Mother'. In the absence of a 'framework' of providers for maternal obesity weight management programmes it is essential that formal commissioning and procurement processes are followed when commissioning new weight management interventions for local areas.

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Commissioners should also note that the White Paper 'Liberating the NHS' (published in July 2010) sets out plans for significant changes to the way in which maternity services are commissioned. The reader is advised to seek out the latest advice from the Department of Health website as new arrangements are developed and implemented.

It is important to remember that weight management services should be commissioned in the context of a whole care pathway.

CASE STUDY

NHS Lambeth and Guys and St Thomas' Hospital NHS Trust: Comprehensive Maternal Obesity Health Needs Assessment used to inform the care pathway

See Case Studies

De-commissioning existing obesity interventions and providers

Commissioners may need to consider de-commissioning specific services although this is less likely to be required as with childhood or adult obesity services as fewer maternal obesity services currently exist or are being provided. De-commissioning is the process of ending the provision of activities/interventions that are no longer required or appropriate. This may be necessary as part of service redesign or the movement of investment to meet new priorities. For example, an existing service may only provide a healthy eating component to tackling obesity and the investment in this programme could be spent better by de-commissioning the existing service and commissioning a multi-component weight management service. Please note that guidance by NICE on the commissioning of weight management services states that interventions should be multi-component (include healthy eating, physical activity and behaviour change). The *Healthy Weight Healthy Lives: Commissioning weight management services for children and young people* (2008)[iii] guidance provides a tool which sets out the steps to go through and a checklist of possible issues to be considered in planning and managing the process and the consequences of de-commissioning weight management services. It is supported by reference to legislation, policy and procedures to be considered. Once again, this can be tailored to the de-commissioning of maternal obesity weight management services.

Step 4

Service and provider development

Instead of, or in addition to, commissioning and de-commissioning services, there may be a need to redesign existing services and interventions by supporting service and provider development. This may be necessary if the mapping of services has identified a number of issues with the existing service provision as outlined below:

- **Under-provision** – the service is performing effectively and efficiently but there is inadequate supply for the need (and demand).
- **Over-provision** – the service is performing effectively and efficiently but there is excess supply for the need (and demand). This may occur if services do not exist at the lower tiers of the pathway and therefore individuals are referred directly to services in the higher tiers. Establishing new services at the lower tiers will therefore reduce the need for services in the higher tiers.
- **Inappropriate provision** – the target groups are not being reached (in terms of age, ethnicity, socioeconomic status, geographical area, and degree of obesity). Adapt the service to align it with local need and ensure that there is equitable service provision.
- **Duplication in provision** – two services exist and are targeting the same groups (i.e. they have the same referral criteria).
- **Out-of-date provision** – existing services may need to be adjusted in response to the publication of new evidence and guidance.
- **Insufficient capacity and capability** – frontline staff (health and non-health care professionals) may need to have their skills and knowledge supplemented and strengthened to ensure they can appropriately identify and manage overweight and obese patients.
- **Inadequate output and outcome data** – evidence to demonstrate effectiveness and cost effectiveness of the service may be insufficient or not aligned with national guidelines, or unable to be compared across services. This will depend upon the data collection, collation and storage protocols of each service.

Service and provider development is particularly important for interventions that have been commissioned previously. During monitoring and evaluation of the services ensure that they are meeting local need, aligned with the latest evidence, and that there is no excess demand or supply for the service.

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Step 5: Draft and finalise the pathway

Developing the care pathway involves agreeing a number of critical steps:

- positioning each service at the appropriate tier within the pathway;
- agreeing entry thresholds/referral criteria/inclusion and exclusion criteria for each service and tier along the pathway;
- agreeing exit thresholds/discharge criteria for each service and tier along the pathway;
- establishing referral routes (including self referral) which can assist in ensuring that the service is reaching as many people within its target population as possible;
- establishing routes back through the pathway (i.e. a woman returning from a higher tier to a lower tier. For example, a woman who is obese but found to have no co-morbidities (e.g. gestational diabetes) may move down from level 3 to level 2);
- establishing the definitions for successful/unsuccessful at each level of the pathway and criteria for referral on through the pathway;
- agreeing the transition into/out of and service provision for weight maintenance. This includes the criteria for entering weight maintenance and how long the individual remains in weight maintenance;
- identifying the frontline staff (health and non-health care professionals) who need to be involved at each tier, and their capacity and capability;
- identifying sources of support which can be offered by various organisations; and
- agreeing outputs and outcome measures to be collected at various points along the pathway for monitoring and evaluation (baseline and follow-up).

There are many different ways of presenting care pathways, much of which will depend on the target audience viewing the pathways. It is likely that it will be necessary, and helpful, to produce the pathway in a few different formats, all of which will display the same information but use a different framework. The following 3 frameworks have been provided here as examples.

1. Triangle approach
2. Referral pathway approach
3. Care pathway approach

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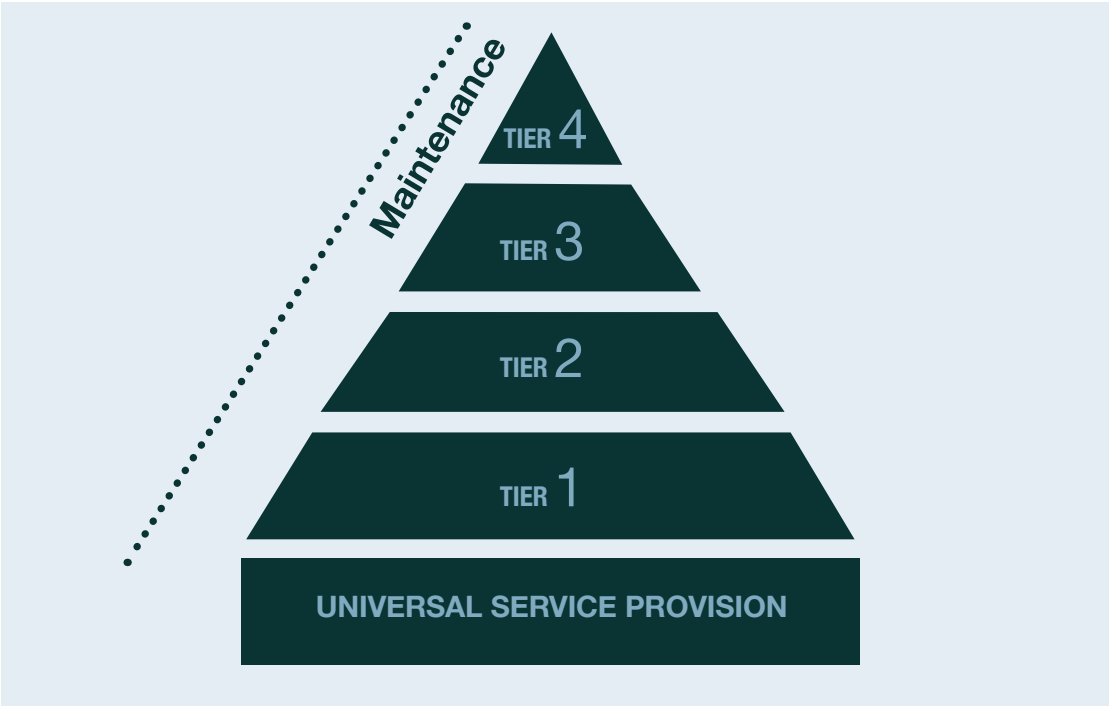
Step 5

Triangle approach



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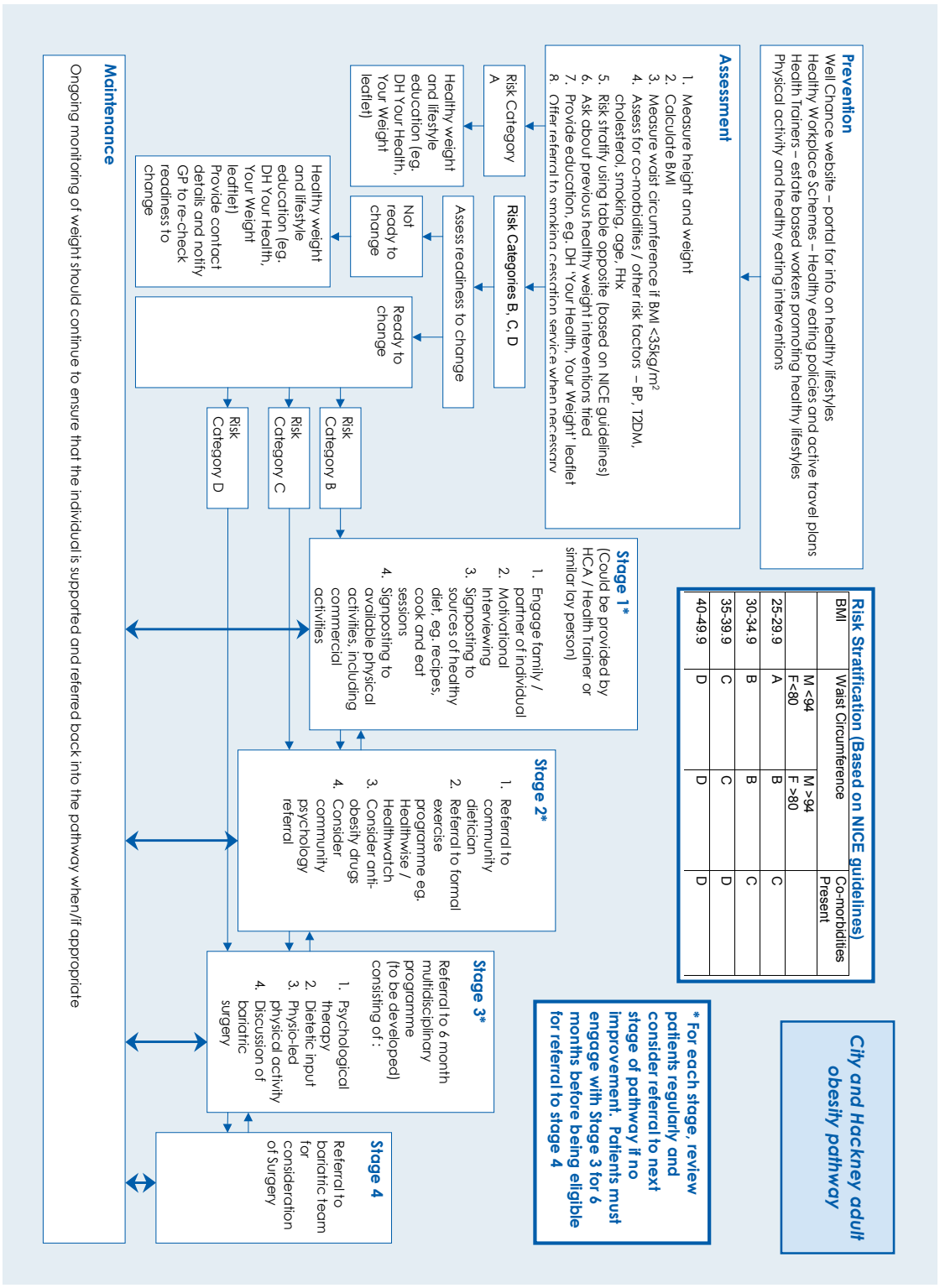
Step 5

Referral pathway approach

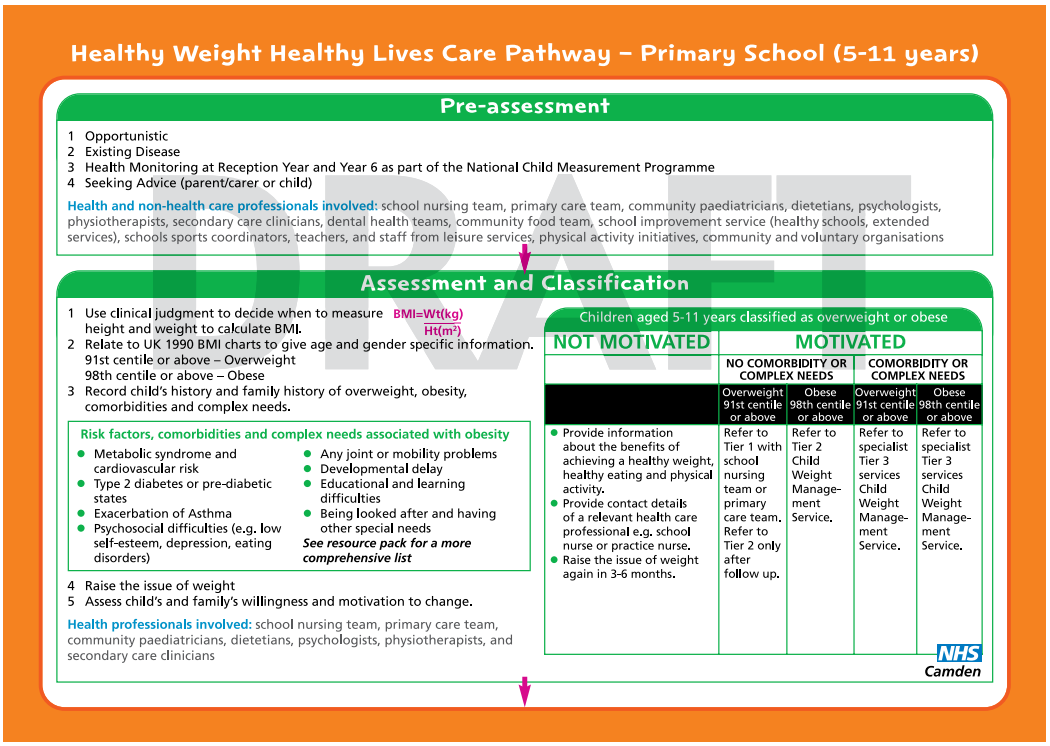
Example of an Adult Obesity referral pathway from NHS City and Hackney. Please note that the referral pathway is currently in draft format.

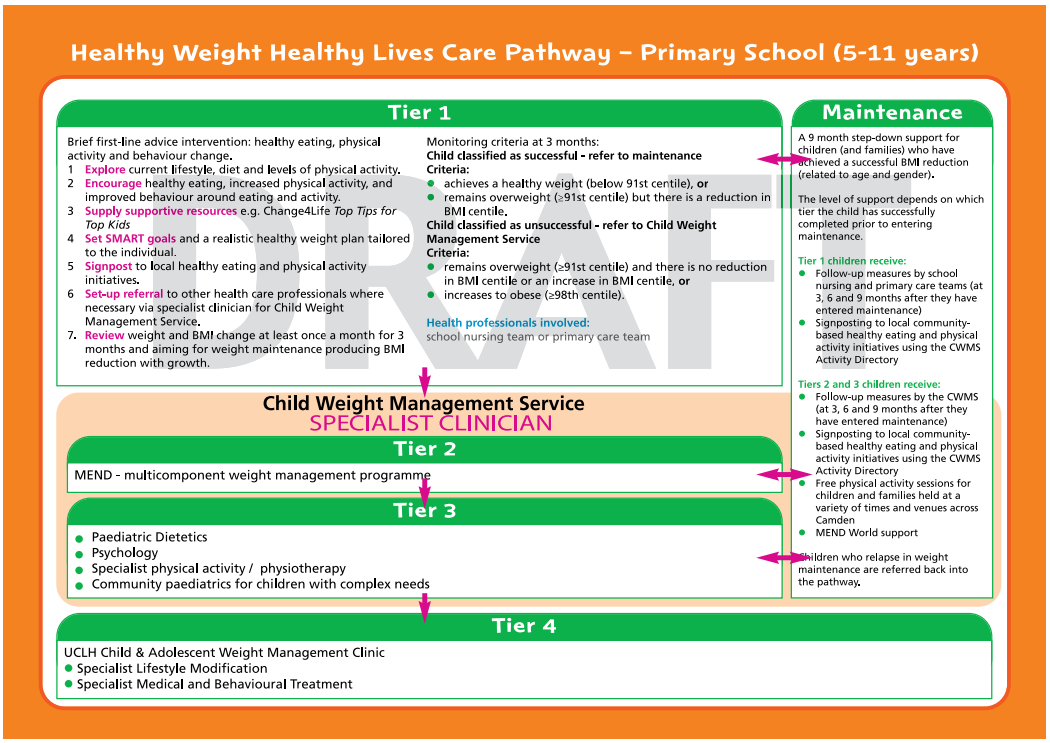


Step 5

Care pathway approach

Example of a Child Obesity (5–11 year old – primary school) care pathway from NHS Camden (this is one of three child obesity care pathways – early years, primary school and secondary school). Please note that the care pathway is currently in draft format.





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All three approaches are based on guidance and evidence as well as case studies from local areas. They all use tiers to illustrate the different levels of care that are provided for overweight and obese individuals, as described in more detail below. The tiers cover service provision from universal services offered to everybody, through to specialist services provided to those high-risk patients with particular co-morbidities or complex needs.

Universal services

This level covers core preventative services that all adults (including obese women trying to conceive and pregnant obese women) and their families should have access to – providing universal healthy eating, physical activity services and support. Services at this level may also play an important role in providing weight maintenance support for those wanting to maintain a healthy weight.

Pre-pregnancy care

Service provided by primary care health professionals (e.g. GPs, practice nurses, and health care assistants) prior to women conceiving. All women with a BMI 30+ should be given information and advice about the risks of obesity and pregnancy, and women should be supported to lose weight in order to optimise their weight before conception.

Antenatal – Identification, Assessment and Classification

Service provided by midwifery teams, primary care health professionals (e.g. practice nurses, health care assistants and GPs) at booking. Height and weight should be recorded, and BMI calculated and documented.

Antenatal Care – Tier 1

Services provided at this level usually take the form of a brief intervention by frontline staff such as midwifery teams, and primary care teams. This level of intervention is often aimed at all pregnant women with a booking BMI equal to 30kg/m2 or above (NICE specifies that women with a booking appointment BMI of 30kg/m2 or above should be referred to a dietitian or appropriately trained health professional. We are awaiting further guidance regarding at what tier women should be referred and whether she should be given the option of either and/or both tiers awaiting further guidance). The service is usually conducted 1:1 with the woman (and partner) where they should be provided with accurate and accessible information about the risks associated with obesity in pregnancy and how they may be minimised. Women should be given the opportunity to discuss this information. The management of women with obesity in pregnancy should be integrated into antenatal clinics, with clear policies and guidelines for care available.

Antenatal Care – Tier 2

Services provided at this level can take the form of multi-component (nutrition, physical activity, and behavioural change) interventions that may take place in community or acute setting, and may be run by non health care professionals, although a health care professional (e.g. a midwife) should be present. This level of intervention is often aimed at women with BMI equal to 30kg/m2 or above but without a medical cause of obesity, co-morbidity or complex need.

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Antenatal Care – Tier 3

Services provided at this level often require more intensive and specialist clinical input than tier 2 services. Specialists include dietitians, psychologists and physiotherapists/ physical activity specialists. The service usually takes place in the acute setting. This level of intervention is often aimed at adults with BMI greater than or equal to 35 kg/m2 with a medical cause of obesity, significant co-morbidity or complex need. Pregnant women with a booking BMI 35+ should also give birth in a consultant-led obstetric unit and are therefore also seen by a consultant obstetrician.

Antenatal Care – Tier 4

Services provided at this level often require more intensive and highly specialised clinical input than tier 2 and 3 services. Specialists will include similar professionals to those provided within tier 3 (e.g. specialist midwives in diabetes, dietitians, psychologists/ psychiatrists, and physiotherapists) as part of specialist clinics. Women will also be seen by consultant obstetricians and obstetric anaesthetist. The service will also be acute based. This level of intervention is often aimed at adults with BMI greater than 40kg/m2, with a medical cause of obesity or significant co-morbidity or complex need.

Given that there is currently limited evidence and guidance available on maternal obesity care pathways, the tiered structure outlined above is based primarily on examples from local areas. Furthermore, implementation of tiers 2, 3 and 4 will depend on service provision and referral processes, which will vary across acute trusts within local areas.

Postnatal Care and Maintenance

This is a variety of services provided via existing or new services within the borough (e.g. structured physical activity sessions) to ensure women lose weight gained during pregnancy and achieve their healthy weight, and maintain their healthy eating and exercise behaviours. This should include follow-up measurements (e.g. BMI). The postnatal phase is an important time for the prevention of childhood obesity and for taking a family-based approach. These services are conducted by midwifery teams and health visiting teams. The 6–8 week postnatal check should be used as an opportunity to discuss a mother's weight.

A number of versions of the pathway (whichever framework approach is used) will need to be produced and circulated for comments. Ensure that all stakeholders review the drafts and provide feedback as this will assist with the implementation process. It may also be helpful to begin to draft the care pathways prior to commissioning and procuring new services i.e. the pathway will include some services that are already in place, some that are currently being commissioned and some that require business cases to fund new services. The draft care pathways can be used in all of these situations i.e. they can be attached as appendices to service specifications for new services, and to business cases, and used in presentations to senior management when trying to agree additional funds or the reallocation of resources. A number of iterations of the draft pathway will be produced before it is signed off and finalised in Step 7, and even then the pathway may be revised following monitoring and evaluation.

At this stage, it is also beneficial to consider whether to produce resource packs that support the pathways. These support packs should contain detailed information about all stages of the pathway (e.g. identification, classification, management at different tiers, follow up and maintenance) and tools/resources for use by all the frontline staff involved with the whole of the pathway (i.e. across all of the tiers). They provide a record and resource that staff can refer to whilst using the pathway and contain detailed information that is unable to be included on the pathways.

Step 6: Identify training requirements

During implementation, training days and events will be needed both to launch the pathway and to ensure that everyone has the capacity to implement the pathway effectively.

Local areas need to make sure that all health and non-health care professionals are equipped and feel confident raising the issue of weight, assessing the weight status of women, providing healthy eating and physical activity advice (tailored to both the antenatal and postnatal phases) using behaviour change techniques (brief intervention training including facilitation of groups), supplying supportive literature and resources, signposting to local initiatives, and referring into associated weight management services. The specific training requirements will be different for each individual PCT and individual needs should be identified during the stakeholder engagement, mapping of existing services, and drafting of pathway.

A generic outline of potential training needs is outlined in table 2.7. Please note that the resources available for training must be taken into consideration (see Initiation Phase – Step 5: Agree key resources). PCTs should also consider establishing an annual rolling training programme that takes account of top-up/refresher training and staff turnover.

PCTs that decide to launch child, adult, and maternal obesity care pathways simultaneously, should consider coordinating training events. This would demonstrate a systematic provision of care for overweight and obese individuals across the life-course. In addition, PCTs developing and launching a local maternal obesity care pathway should consider linking with neighbouring PCTs and providing a regional maternal obesity pathway that takes account of the need to engage with a number of PCTs. Coordinated training events are likely to improve partnership working across groups of health care professionals.

See *Appendix G* for a Training needs gap analysis template.

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Step 6

Table 2.7: Generic outline of Potential Training Needs

Level	Training Content
Level 1	**Understanding and implementing the pathway** • Launch the pathway • Presentation explaining and talking through the pathway • Questions and answers on the pathway to ensure all delegates understand the pathway The training should take place over a short session (e.g. lunch breaks) or could be lengthened to half a day by including a brief exercise/group work on a case study. This level of training is ideal for frontline staff who need to be aware of the pathway and understand how and where to refer obese pregnant women within the pathway but may not need to conduct detailed assessments or manage overweight or obese individuals or they already have the required skills (for example, GPs, dietitians, psychologists).
Level 2	**Assessment and management of overweight and obese pregnant women and women trying to conceive** • Launch the pathway • Presentation explaining and talking though the pathway • Questions and answers on the pathway to ensure all delegates understand the pathway • Interactive session on raising the issue of weight and assessing/exploring motivation to change using role-plays. • Practical session on measuring height, weight, calculating BMI at booking appointment. • Practical session on conducting a 'brief intervention' – providing healthy eating and physical activity advice, agreeing SMART goals and a realistic weight management plan and follow up. • Practical session on breastfeeding and weaning. • Exercise/group work using case studies • Referral into associated weight management services within the pathway. Role plays and case studies should recognise that when tackling maternal obesity, the woman and her partner may be involved. The training should ideally take place over one day with regular breaks throughout the day. It is ideal for frontline staff who will be conducting detailed assessments and managing overweight and obese pregnant women (for example, midwives, health visitors, and practice nurses). Frontline staff who are involved with tier 3 weight management services (e.g. dietitians, psychologists, physiotherapists/ specialist physical activity professionals) may be able to play a role in delivering the level 2 training and providing ongoing support to frontline staff at tiers 1 and 2.
Level 3	**Behaviour change and motivational interviewing** Two days plus training on behavioural change techniques.

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Step 7: Sign off the pathway

Once the pathway has been agreed by the Obesity Care Pathway Steering Group, they will need to be taken to a number of key groups for sign off. These include:

1. PCT Public Health/Health Improvement Senior Management Team (SMT)
2. PCT Professional Executive Committee (PEC)
3. PCT Commissioning Executive/Board
4. Acute based boards

There may be other senior groups and committees that need to sign off the pathway but these are individual to each PCT and acute trust.

A paper will need to be produced (with the pathways attached as appendices) and circulated in advance of the board and committee meetings.

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Phase 3: Implementation

Definition: the implementation phase is the third phase in the obesity care pathway process. It involves applying and putting into practice the finalised obesity care pathway.

During the implementation phase, the obesity care pathway lead will plan and co-ordinate launch and training events in combination with designing and printing, and marketing and advertising the pathways.

There are three steps within this phase:

1. Plan and organise the launch and training events
2. Design and print the pathway
3. Launch the final pathway

Step 1: Plan and organise launch and training events

The training needs of frontline staff should have been identified during the development phase (see Phase 2: Development – Step 6: Identify training requirements). Once the training needs have been agreed, training events must be planned and organised. The training events may be able to be provided 'in-house' using internal staff and venues or in some cases, it may be necessary to commission training packages. *Healthy Weight, Healthy Lives: Directory of Obesity Training Providers* (April 2009)[xv] lists training courses, and acts as a resource for commissioning training on the prevention and management of obesity. The directory is an update of the one published in 2005. There are no quality assurance criteria for the listings and, as such, inclusion in this directory does not indicate approval or accreditation by the Department of Health or Dietitians in Obesity Management UK (DOM UK). The resource should, however, still be considered a useful guide for PCTs identifying training providers to support the implementation of the pathway.

See *Appendix G – Training needs gap analysis by staff group*
See *Appendix H – Training event checklist*

Step 2: Design and print the pathway

The final pathway should have been agreed and signed off during the development phase (see Step 5: Draft and finalise the pathway and Step 7: Sign off the pathway). Depending on financial resources, the pathways and training materials can either be printed 'in-house' or by a professional publisher/printer. Estimate the number of health and non-

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health care professionals that will be using the pathway, for example, midwives (acute and community), health visitors, obstetricians, health trainers, practice nurses, GPs, dietitians (acute and community), psychologists (acute and community), physiotherapists, and specialist physical activity professionals. Ensure that enough copies of the pathway are produced so that all staff are able to have their own copy.

See *Appendix G – Training needs gap analysis by staff group*

Step 3: Launch the final pathway

The pathway needs to be launched across the borough for successful implementation to take place. Launching will take place both through marketing and advertising, and the training and launch events. Ensure that the pathway is an agenda item on all related steering groups/partnership meetings/networks, such as, Breastfeeding Partnership, Maternity Services Steering Group and acute based boards. A number of stakeholders who have been involved with generating the pathway will be part of these steering groups, but presenting at each of these specific groups will ensure that the pathway is fed down and across to all relevant strategic and delivery staff.

Market and advertise the pathway

Engage all stakeholders and disseminate the pathway through all of their routes via email, post and short presentations. Coordinate with communications departments and produce articles featuring the pathway and associated weight management services and advertise the training events in local PCT, LA, and acute trust newsletters and circular emails. Consider producing a letter from the strategic lead and other key stakeholders (e.g. GP, Consultant Midwife or Consultant Obstetrician) that launches the pathway because this can be used when disseminating copies of the pathway to various settings (e.g. GP practices or acute trusts). It is a good idea to follow up on postal distributions to see if frontline staff have received the pathways.

Coordinate training events

The training sessions should have been planned and organised (see Implementation Phase – Step 1: Plan and organise training events) by this point. Confirm the dates, venues, refreshments, trainers and continue advertising so that a high percentage of delegates attend the sessions. It is unlikely that all health and non-health care professionals will be able to attend the events but the more events, distributed in various venues across the borough (in both community and acute settings), and on different days of the week, the higher the attendance rate.

See *Appendix H – Training events checklist.*

A launch and training events log (see *Appendix I – Launch and training events log)* should be completed and kept up-to-date.

Phase 4: Evaluation

Definition: the monitoring and evaluation phase is the fourth phase in the obesity care pathway process. It involves judging the value of the obesity care pathway and assessing to what extent it has achieved what it set out to do, met any funding conditions, and benefited the target group (overweight and obese local population). The results will indicate what was successful as well as what could be improved. Monitoring and evaluation is particularly important because the obesity care pathway must be sustained, and will result in the continuous improvement of the pathway over time.

During the monitoring and evaluation phase, the obesity care pathway lead will coordinate the monitoring and evaluation of the pathway and use the findings to inform improvements in the pathway. This is key for sustaining the pathway. Any formal evaluation conducted at this stage may be carried out by an external organisation and not necessarily the obesity care pathway lead.

There are five steps within this phase:

1. Monitor and evaluate the pathway
2. Revise and improve the pathway
3. Disseminate the findings
4. Continue to monitor and evaluate
5. Make plans to sustain the pathway

Step 1: Monitor and evaluate the pathway

The importance of monitoring and evaluation

Care pathways are frameworks that should be regularly reviewed and improved to drive up system quality and highlight any weaknesses. At present there is a lack of evidence to demonstrate the effectiveness of obesity care pathways and associated weight management interventions. Monitoring and evaluation of obesity care pathways is therefore necessary for a number of reasons including:

- To revise and continually improve the pathway (see Step 5 – Make plans to sustain the pathway);
- To provide evidence of effectiveness and cost-effectiveness, (particularly important for supporting requests for further funding); and
- To expand the evidence-base and develop models of good practice that can be shared with other PCTs.

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Evaluating a pathway is often forgotten, particularly as the focus is centred on actually developing and implementing the pathway. Although it is positioned in the fourth quarter of the cycle of phases, it should not be considered a stand-alone activity that should only occur at the end of the pathway development and implementation phases. Evaluation is an integral part of the process and should be considered during the initiation phase (see Step 5: Agree key resources) and development phase (see Step 4: Reconfigure services to meet need and see Step 5: Draft and finalise the pathway). It should be closely linked to the objective setting and setting of key output and outcome measures (key performance indicators) for each of the services within the pathway.

Conducting monitoring and evaluation

A national Standard Evaluation Framework (SEF)[xvi] has been developed by the National Obesity Observatory (2009) to support high quality, consistent evaluation of weight management interventions. The guidance lists criteria divided into two parts: essential and desirable. Essential criteria are presented as the minimum recommended data for evaluating a weight management intervention. Desirable criteria are additional data that would enhance the evaluation. Although the guidance is specifically for the evaluation of weight management interventions, it can be used more widely for supporting the evaluation of the whole care pathway.

Monitoring is a continuous process carried out throughout the whole project and is used to check the extent to which the project is proceeding according to plan. For example, the commissioner may review quarterly monitoring reports from providers to see if recruitment and attendance rates are achieving the target. Results of the monitoring process can change the development and implementation of the pathway (e.g. a sudden decrease in attendance rates can be rectified by establishing a recruitment drive, changing the location of the service). Monitoring should not be considered a substitute for a full evaluation.

Evaluation is assessed at a particular point in time to measure the extent to which the project has achieved its objectives. Evaluation can measure process, output, impact and outcome measures. Process evaluation focuses on the process used throughout the development and implementation of the pathway: it aims to see why the pathway meets or does not meet its aims and objectives; what went right and what went wrong; what can be learnt for future pathway development projects. Output, impact and outcome focus on whether the pathway development and implementation project met its aims and objectives. This might be in terms of outputs (e.g. attendance rates), health impacts (e.g. change in health behaviours around eating and physical activity) or outcomes (e.g. change in body mass index in postnatal period). It is also helpful to record the inputs (resources used to conduct the work e.g. financial, material and human).

It is advisable to allocate a budget and resources (personnel and funding) and agree plans for the monitoring and evaluation phase prior to developing the obesity pathway (see Initiation phase – Step 5: Agree key resources to develop a care pathway). There is no general consensus on the level of funding required for evaluations although the World Health Organisation (WHO) suggests at least 10 per cent of the total budget. In addition, during the initial start up phase make sure you confirm your SMART (Specific, Measurable, Achievable, Relevant, Time-limited) objectives, and expected outputs and outcomes.

Step 1

The next step is to establish and set core measures (performance indicators), which use information that indicates that an objective has been met (i.e. a measure of something which demonstrates a change in a particular outcome following the pathways implementation). The core measures or performance indicators can be quantitative and qualitative (these are different ways data can be used to inform evaluations):

- **Quantitative indicators** give numerical results that can be analysed using statistical methods. Quantitative methods are most often used to assess outcomes.
- **Qualitative indicators** use narrative or descriptive data rather than numbers. Qualitative methods are most often used to assess service user and service provider needs and views.

Table 4.1 provides examples of quantitative and qualitative indicators.

Table 4.1: Examples of quantitative and qualitative indicators

Indicator	Example
Quantitative	**Percentage of individuals who have completed the tier 2 weight management intervention and reduced their BMI/weight (postnatal period)** **Percentage of individuals who have maintained weight loss at six months after completing the weight management intervention.** **Prevalence of obesity among women of childbearing aged 15–44 years.** NOTE: The effects of introducing a pathway are likely to have a time lag so a local change in the prevalence of obesity in women of child bearing age will be greater in years two and three than year one.
Qualitative	**Semi-structured interviews with health care professionals (e.g. midwives)** to assess their thoughts and feelings about using the pathway (e.g. effectiveness, barriers to implementation, factors to facilitate implementation). **Focus group with service users** to assess their experiences of being identified and assessed by midwifery teams, referred into the tier 2 weight management intervention and recommendations for how it can be improved (e.g. assessment, referral process, length of time for referral, length or programme, timing, location, and content of programme).

It is important to be realistic about the impact of the pathway on the key indicators and to agree a range of indicators. SEF recommends considering using a 'Logic Model', which describes the relationships between elements in a project or intervention, and the likely direction of change.

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Step 1

The following step is to identify how and when to collect the data required for each core measure. Performance indicators can be existing indicators or new indicators. For example, PCTs already collect data on the prevalence of breast feeding at 6–8 weeks from birth. This is therefore a useful existing indicator with available data, while the percentage of adults that lose weight during the postnatal programme would be a new indicator that requires identifying a new data collection method. Some data will be objective and easy to collect (e.g. height and weight, BMI at the start and end of the intervention) and some data will require indirect methods (e.g. questionnaire on physical activity). Tool D14 in the *Healthy Weight, Healthy Lives: A Toolkit for Developing Local Strategies* (2008)[xvii] contains a selection of methods and techniques for collecting data. SEF outlines some validated tools for measuring physical activity. Qualitative data will usually be collected through semi-structured face-to-face or telephone interviews, or focus groups. When designing questionnaires and considering conducting semi-structured interviews or focus groups, it is important to seek help from someone experienced in quantitative and/or qualitative methods. It is also important to confirm baseline data and levels against which performance can be measured i.e. compare outcome data with baseline data.

At all stages of agreeing the data sets and information that shall be collected at each stage of the pathway (and for each period: pre-conceptual, antenatal and postnatal), refer to and cross-reference with the SEF to ensure that the indicators, service specifications, SLAs are all aligned with SEF. Although the SEF is not specifically for maternal obesity, the criteria and content can be adapted.

Finally, once the data has been collected, it needs to be analysed at pre-agreed points throughout the project. For the pathway, this could be annually although interim reports on individual components of the pathway (e.g. each weight management intervention) should be monitored on a more regular basis (e.g. quarterly). The type of analysis will depend on the performance indicator, data, and data collection method. For example, quantitative data will require the appropriate statistical test and quantitative data will require the appropriate analytical analysis method.

Table 4.2 provides examples of monitoring and evaluation questions and data collection methods (following page).

Table 4.2: Examples of monitoring and evaluation questions and methods that can be used for evaluating obesity care pathways

Performance Indicator	Monitoring and Evaluation methods
Outputs **1. Numbers and sources of referrals** Number and % of patients referred and by source (for each weight management programme) **2. Attendance/drop-out at first session** Number and % of patients attending and failing to attend first session **3. Retention rates** Number and % of patients who fail to attend a session (for each weight management programme) **4. Completion rates** Number and % of patients that complete the tier 2 weight management intervention (i.e. attended 75% of the sessions) (for each weight management programme) **5. Referral onto appropriate tier** Number and % of patients that are unsuccessful at tier 2 and referred on to tier 3 (or tier 3 to tier 4). **Impacts and outcomes** **1. Weight loss on completion** Number and % of patients that complete the weight management programme (i.e. attends 75% of the sessions) and achieve 5% weight loss at 3 months (for each weight management programme – postnatal). **2. Weight maintenance and follow-up at 9 months post completion (12 months from baseline)** Number and % of completers/patients achieving no increase in weight/BMI (9 months) after completing the programme (for each weight management programme – postnatal).	Quantitative – quarterly reporting/ data extraction followed by statistical analysis.
Service user feedback **1. Participants satisfaction with service** strengths, weaknesses, likes, dislikes, self-reported programme impacts (for each weight management programme), referral process into the service, discharge from the service, follow-up.	Qualitative – focus group
Service provider feedback **1. Service provider views and recommendations** strengths, weaknesses, problem areas, recommendations (for each weight management programme) and views on using the care pathway (from all frontline staff e.g. midwives, primary care teams, health trainers, pharmacists).	Qualitative – semi-structured interviews (face-to-face or telephone)

Please note that these are examples and should not be considered an exhaustive list. See the SEF essential and desirable criteria. Work through each step of the pathway and consider whether it is possible to set an appropriate performance indicator and how the data will be collected for each core measure. It is also helpful to identify which service or frontline staff will collect the data and how it will be reported to the commissioner. See *Appendix J* for a template for monitoring and evaluating the pathway.

Tackling obesity requires action across a range of areas, and individual initiatives, such as generating pathways, are only one of the actions involved with decreasing the prevalence

of obesity. Therefore, it is advisable to monitor progress made by process measures that are associated with the outcome measure and agree on a combination of quantitative and qualitative methodologies for monitoring and evaluating the obesity care pathway.

Step 2: Revise and improve the pathway

The results of monitoring and evaluation should be fed back into the planning and revisions to the pathway.

Step 3: Disseminate the findings

The results of the evaluation should be disseminated widely in a number of formats, for example, a final report, short written summaries, steering group meetings and seminars or workshops. All PCTs should consider producing a journal article, for a peer-reviewed publication, to increase the evidence and support other PCTs undertaking similar evaluations.

Step 4: Continue to monitor and evaluate

As mentioned in 'Step 1: Monitor and evaluate the pathway', monitoring is a continuous process carried out throughout the lifetime of the project. Once again, the results of monitoring and evaluation of the desired outcomes should be used to revise the pathway.

Step 5: Make plans to sustain the pathway

The extent to which an intervention may be continued beyond its initial development, implementation and evaluation depends upon the effectiveness of the programme and whether there is a continued source of funding. See 'Initiation phase – Step 5: Agree key resources' for an outline of the specific activities that will require continued funding. It is therefore crucial that key indicators are put in place to evaluate the pathway and the results are used to make improvements in order to increase its reported effectiveness.

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Resources

Websites

Centre for Maternal and Child Enquiries (formally CEMACH) – Improving the health of mothers, babies and children
www.cmace.org.uk/

Change4Life (including Start4Life and Adult Change4Life)
www.nhs.uk/change4life/Pages/Partners.aspx

Department of Health – Obesity
www.dh.gov.uk/en/Publichealth/Obesity

Department of Health – Physical Activity
www.dh.gov.uk/en/Publichealth/Healthimprovement/PhysicalActivity

Department of Health – Change4Life
www.nhs.uk/change4life/Pages/change-for-life.aspx

Institute of Medicine (US)
www.iom.edu

National Institute for Health and Clinical Excellence (NICE)
www.nice.org.uk

National Obesity Observatory (NOO)
www.noo.org.uk

Obesity Learning Centre
www.obesitylearningcentre-nhf.org.uk

Royal College of Obstetricians and Gynaecologists
www.rcog.org.uk

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Publications

Change4Life Marketing Strategy – In support of Healthy Weight, Healthy Lives (April 2009)

Change4Life: One Year On (February 2010)

Chief Medical officer Report – At least five a week: Evidence on the impact of physical activity and its relationship to health (April 2004)

Foresight – Tackling Obesities – Future Choices Project (October 2007)

This project looked at how we can respond sustainably to the prevalence of obesity in the UK over the next 40 years.

Healthy Weight, Healthy Lives: A Toolkit for Developing Local Strategies (October 2008)

This toolkit is to help primary care trusts and local authorities plan, coordinate and implement comprehensive strategies to prevent and manage overweight and obesity.

Healthy Weight Healthy Lives: Consumer Insight Summary (November 2008)

Summary of the results of research carried out for the Department of Health into families' attitudes and behaviours relating to diet and activity.

Healthy Weight, Healthy Lives: Commissioning weight management services for children and young people (November 2008)

A guide developed to support local areas in commissioning weight management services for children and young people. It is designed to reflect the move towards world class commissioning and joint commissioning of children's services.

Be active, be healthy – a plan for getting the nation moving (February 2009)

Be active, be healthy establishes a new framework for the delivery of physical activity alongside sport for the period leading up to the London 2012 Olympic Games, Paralympic Games and beyond. It also sets out new ideas for Local Authorities and Primary Care Trusts to help determine and respond to the needs of their local populations, providing and encouraging more physical activity, which will benefit individuals and communities, as well as delivering overall cost savings.

Healthy Weight, Healthy Lives: Directory of obesity training providers (April 2009)

The directory lists training providers running courses on the prevention and management of obesity.

DH Supporting Commissioning of Adult Weight Management Services (February 2010)

A resource for commissioners of weight management services. It provides a summary of adult obesity data taken from a range of existing sources. Data is presented at a national, regional and local level and can be drawn on by commissioners to inform business plans when making the case for local investment in weight management services.

British Heart Foundation Detailed Local Area Costs of Physical Inactivity by Disease Category

Let's Get Moving – introducing a new physical activity care pathway: Commissioning guidance (September 2009)

General Practice Physical Activity Questionnaire (GPPAQ)

Revision to the Operating Framework for the NHS in England 2010/11 (June 2010)

National Institute for Health and Clinical Excellence (NICE)

- Change4Life Marketing Strategy (April 2009)
- Maternal and Child Nutrition (March 2008)
- Antenatal care: routine care for the healthy pregnant woman (March 2008)
- Diabetes in pregnancy: management of diabetes and its complications from pre-conception to the postnatal period (July 2008)
- Fertility: assessment and treatment for people with fertility problems (February 2004)
- Dietary interventions and physical activity interventions for weight management before, during and after pregnancy (July 2010)
- Behaviour Change (October 2007)
- Physical Activity and the environment (January 2008)
- Promoting physical activity for children and young people (January 2009)
- Promoting physical activity in the workplace (May 2008)
- Four commonly used methods to increase physical activity: brief interventions in primary care, exercise referral schemes, pedometers and community-based exercise programmes for walking and cycling (March 2006)

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DH Obesity Care Pathway

Package of materials for health care professionals as well as information to be given to patients. It includes obesity care pathways for adults and children and a supporting booklet with detailed information for health professionals. In addition, there are tools to help GPs raise the rather sensitive issue of weight opportunistically with both adults and children.

National Obesity Observatory Standard Evaluation Framework for weight management interventions (March 2009)

The aim of the SEF is to support high quality, consistent evaluation of weight management interventions in order to increase the evidence base. The SEF provides introductory guidance on the principles of evaluation, and lists 'essential' and 'desirable' criteria. Essential criteria are presented as the minimum recommended data for evaluating a weight management intervention. Desirable criteria are additional data that would enhance the evaluation. The supporting guidance describes why particular criteria have been categorised as essential or desirable, and gives further information on collecting data.

Department of Health – NHS LifeCheck (NHS MidLife Check)

www.dh.gov.uk/en/Publichealth/Healthimprovement/NHSLifeCheck

Documents previously produced by the Department of Health to support local work on obesity may also be of use.

Appendices

Appendix A: Summary spreadsheet for key resources required for obesity care pathway process

Estimated Costs for Obesity Care Pathway	Cost (£)
Phase 1: Initiation	
Personnel – Obesity Care Pathway Project Lead (external)*	
Phase 2: Development	
Personnel – Obesity Care Pathway Project Lead (external)*	
Investment in service provision:	
Identification and Assessment	
Tier 1	
Tier 2	
Tier 3	
Tier 4	
Maintenance	
Phase 3: Implementation	
Personnel – Obesity Care Pathway Project Lead (external)*	
Trainers (launch and training events) (e.g. dietitians, psychologists, physiotherapists/physical activity specialists – internal or external)	
Venues (launch and training events)	
Refreshments (launch and training events)	
Marketing and advertising	
Design and printing resources (e.g. pathways and supportive resources)	
Equipment (e.g. scales, tape measures)	
Phase 4: Evaluation	
Personnel – Obesity Care Pathway Project Lead (external)	
External evaluators (e.g. to complete the whole evaluation or sections such as focus groups with service users and interviews with commissioners)	
Rolling training programme/top-up training	
Design and printing costs (once revisions to the pathway)	
Total estimated cost	

** It may be also helpful to estimate the hours that all internal project leads will have to dedicate to the project*

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Appendix B: Who are your stakeholders?

Primary/community care	Name of local stakeholder
PCT Obesity Lead	
Assistant/Associate Director of Public Health	
Public Health Strategists – Early Years and Maternity Services	
Head of Health Intelligence/Information	
Adult and Maternity services commissioning lead	
Acute commissioning lead	
Head of Health Promotion	
General Practitioner	
Head of Dietetics	
Dietitian specialised in obesity, weight management, diabetes	
Clinical Psychologist (adults)	
Physiotherapist/Sports and Exercise Medicine	
Community midwives	
Practice Nurse	
Head of Children's Centres	
Head of Health Visiting	
Infant Feeding Coordinator	
Health Trainer Programme Manager	
Prescribing/pharmacy/medicines management	
Professional Executive Committee (PEC) representatives	

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Appendix B

Primary/community care	Name of local stakeholder
Practiced Based Commissioning (PBC)	
Physical activity coordinator (Local Authority/Sport and Leisure Provider)	
Managers of specific local obesity programmes (voluntary and community organisations)	
PCT Social Marketing lead	
Public health dental health consultant/ strategist	
RPHG obesity lead	
External providers of obesity services	
Head/Director of Procurement	
Head/Director of Finance	
Commissioning Support for London (maternity services)	
Other stakeholders (please specify)	

Acute care	Name of local stakeholder
Public Health Consultant Midwife/Consultant Midwife	
Obstetrician	
Dietitian	
Psychology	
Midwives with specialist interests in obesity/ diabetes	
Anaesthetist	
Fertility specialist (Assisted Conception Unit)	
Maternity Services Liaison Committee (MSLC)	
Bariatric surgery consultant	
Gynaecologist	
Other stakeholders (please specify)	

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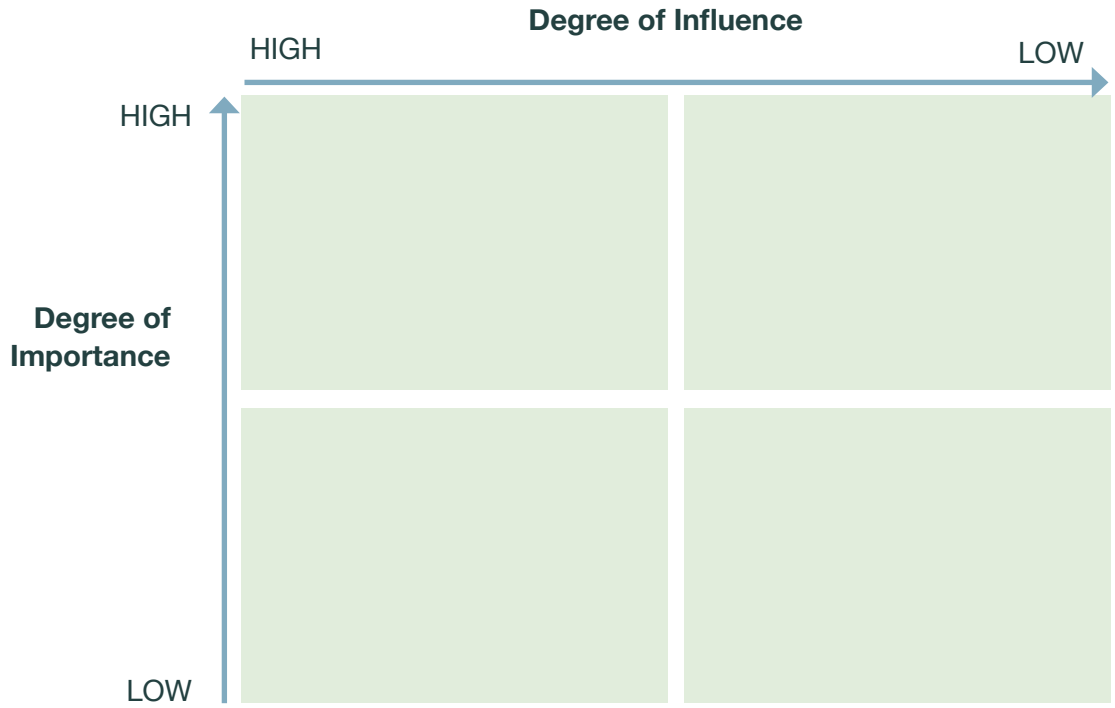
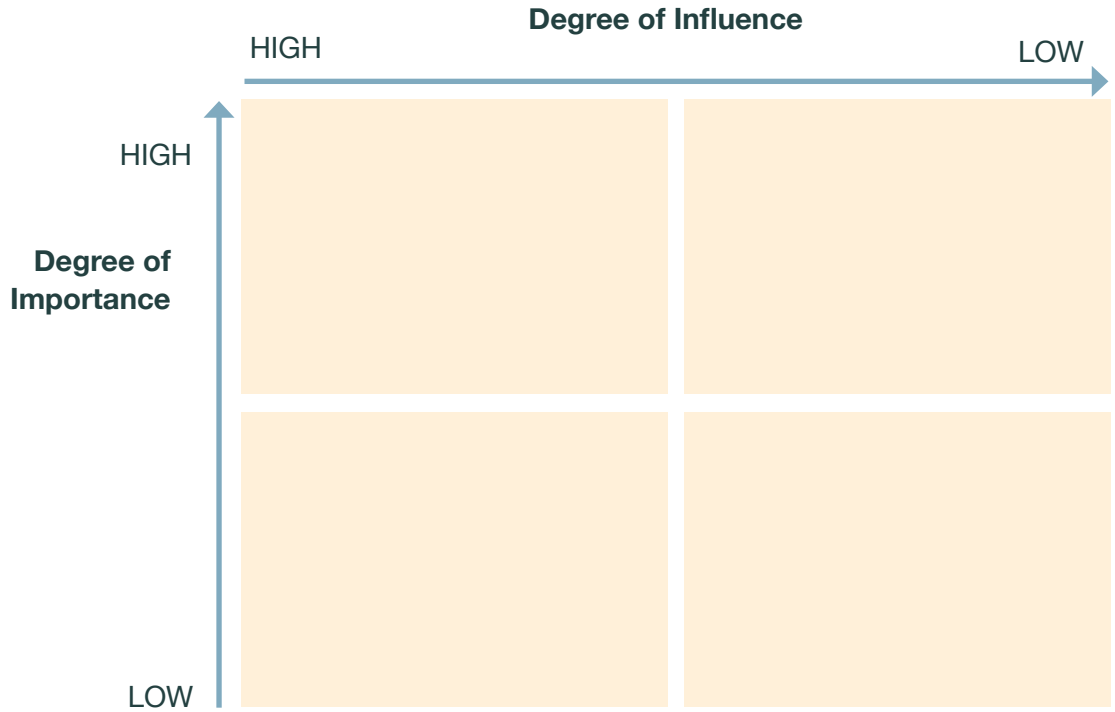
Appendix C: Stakeholder analysis

PHASE 1 – Initiation

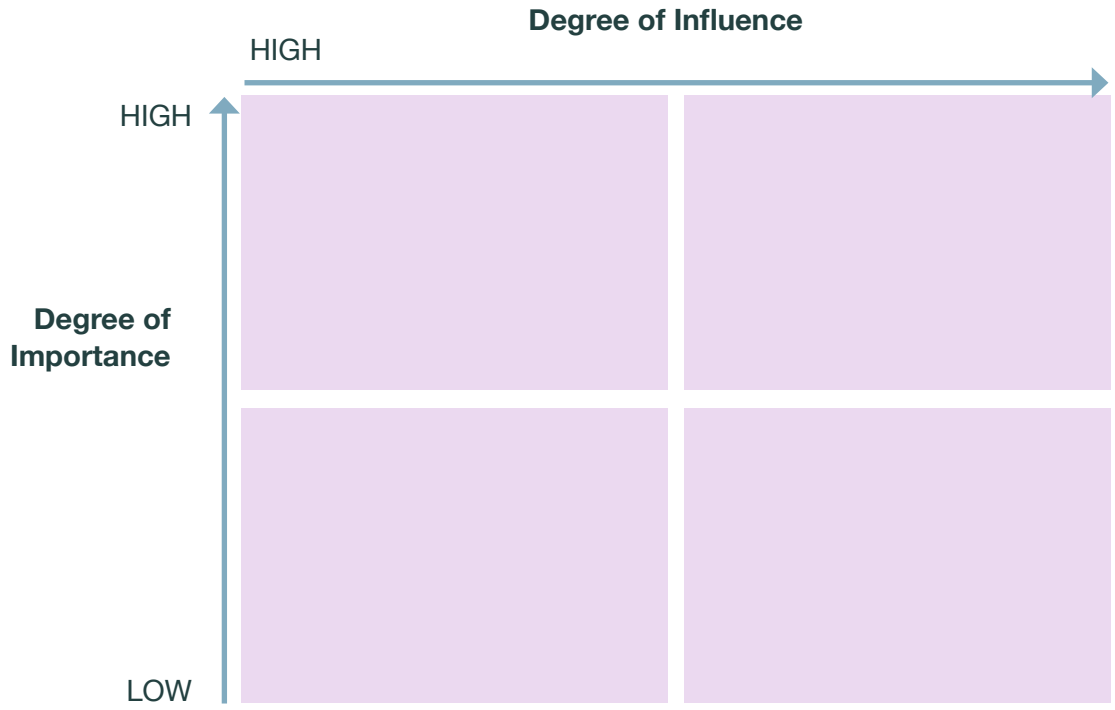


PHASE 2 – Development

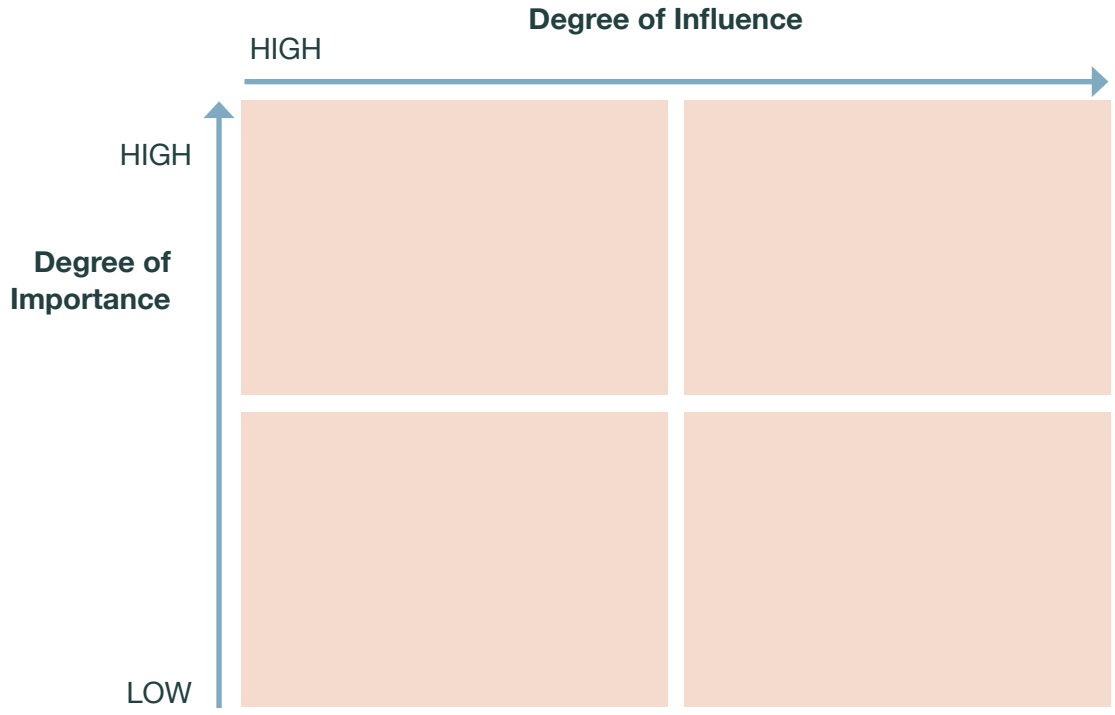


Appendix C

PHASE 3 – Implementation



PHASE 4 – Evaluation



Appendix D: Topic guide of key questions for stakeholders

Introduction

1. Record their name, job title, and contact details.
2. How does your role contribute to tackling adult obesity?

Mapping current service provision

1. Has any type of mapping exercise/needs assessment of maternal obesity services been conducted as yet?
2. How does your service identify and classify obese women during any of the phases (pre-conception, antenatal, postnatal)?
3. What does your service provide/commission for those women that are overweight and obese? For each of the services obtain information on the following areas:
   - **a.** Detailed outline of the service content (e.g. nutrition, physical activity and/or behaviour change components)
   - **b.** Provided by which non-health and health care professionals
   - **c.** Setting for the service
   - **d.** Referral and eligibility criteria for the service (e.g. BMI, age, co-morbidities)
   - **e.** Referral routes (to AND from the service)
   - f. Number and source of referrals to the service?
   - **g.** Under-provision, adequate or over-provision of services i.e. is there a long waiting list?
   - **h.** Demographic, outcome, output data on effectiveness/cost effectiveness of the service (compare with SEF)
   - **i.** Length of the programme/number of appointments
   - **j.** Follow up of woman
   - **k.** Resources/funding available for the service (continuous or fixed term)
   - **l.** Borough wide or confined to specific geographical locations
4. Breaking down by profession, how many health care professionals are there within the department e.g. how many midwives (community and acute), obstetricians, practice nurses, health care assistants, GPs, dietitians (community and acute), psychologists (community and acute), physiotherapists (community and acute), specialist physical activity professionals, pharmacists etc?
5. To what extent are midwives, practice nurses etc involved with tackling obesity?
6. How many staff specifically have maternal obesity work within their contracts?
7. What settings have been used to treat maternal obesity?
8. How many acute trusts, leisure centres, health centres, GP practices (plus any other settings identified in the previous questions) are there in the borough and where are they distributed?

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Appendix D

Prompt the current stakeholder for other obesity services and health care professionals to contact.

9. Are there any other maternal obesity services of which you are aware?
10. Can you recommend anyone else that it would be helpful to speak to that may be able to provide further useful information?

Data sources

1. Have any local audits within acute trusts been conducted on maternal obesity?
2. What are the levels of bariatric surgery?

Providing recommendations for gaps and duplication in service provision

1. Where do you feel there are gaps and duplications in the service provision?
2. Is the current service able to be expanded in order to assist with treating overweight and obese women (it may require additional resources)?
3. Are there examples of good practice that you feel should be mainstreamed?
4. Are you aware of any examples of good practice outside the borough that should be implemented?
5. Do you have any other recommendations for the pathway?

Have a copy of a pathway from another area or a mapping of your existing services.

Identifying training needs

1. Do you think that the workforce directly involved with maternal obesity (e.g. midwives, health visitors, GPs, practice nurses, pharmacy, health trainers) has sufficient capacity and capability to conduct obesity interventions?
2. Has any training been conducted for frontline staff on identifying and managing obese pregnant women or obese women trying to conceive? If yes, what type of training has been conducted, for which health care on non-health professionals and how many have been trained?

Comments on draft versions of the pathway

1. What are your initial thoughts on the layout of the pathway?
2. Could the pathway be realistically implemented within the borough?

Implementing the pathway

1. Are you aware of any barriers to implementing the pathway?
2. Are you able to support the implementation of the pathway (for example, assisting with training days, marketing and distributing the pathway)?

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Appendix E: Mapping of current service provision

Stakeholder	Summary of Service	No. & type of Staff	Referral Criteria	Referral Routes	Setting & time(s)	Capacity of service	Output data (e.g. recruitment, attendance)	Outcome data (e.g. BMI change*)	Funding & Cost (£) (resources)	Systems (e.g. database)
Community services										
Voluntary services										
Children's Centres										
Leisure services										
Tier 1										
Primary Care Teams (e.g. GPs, Practice Nurses, Health Care Assistants)										

continued

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Stakeholder	Summary of Service	No. and type of Staff	Referral Criteria	Referral Routes	Setting & time(s)	Capacity of service	Output data (e.g. recruitment, attendance)	Outcome data (e.g. BMI change*)	Funding & Cost (£) (resources)	Systems (e.g. database)
Tier 1 continued										
Community Midwifery teams										
Health Visiting Teams										
Tier 2										
Community Dietetics										
Community Psychology										
Community Physiotherapy										
Specialist physical activity										
Multi-component weight management programme										

* All output and outcome measures should be broken down by gender, ethnicity, socio-economic group.

continued

Stakeholder	Summary of Service	No. and type of Staff	Referral Criteria	Referral Routes	Setting & time(s)	Capacity of service	Output data (e.g. recruitment, attendance)	Outcome data (e.g. BMI change*)	Funding & Cost (£) (resources)	Systems (e.g. database)
Tier 3										
Acute Midwives										
Obstetricians										
Anaesthetists										
Acute Dietetics										
Acute Psychology										
Acute Physiotherapy										

* All output and outcome measures should be broken down by gender, ethnicity, socio-economic group.

continued

Appendix E

Stakeholder	Summary of Service	No. and type of Staff	Referral Criteria	Referral Routes	Setting & time(s)	Capacity of service	Output data (e.g. recruitment, attendance)	Outcome data (e.g. BMI change*)	Funding and Cost (£) (resources)	Systems (e.g. database)
Tier 4										
Tertiary Care										
Specialist obesity clinics e.g. Regional Obesity Surgery Centres										
Assisted Conception Units										
Private providers										

* All output and outcome measures should be broken down by gender, ethnicity, socio-economic group.

Appendix F: Comparative analysis

Pathway Level	Evidence and Best Practice	Need	Current Service Provision (supply)	Gap Analysis*	Priority**
Pre-pregnancy care	Service provided by primary care health professionals (e.g. GPs, practice nurses, and health care assistants) prior to women conceiving. Give all women with a BMI 30+ information and advice about the risks of obesity and pregnancy, and support women to lose weight. *NICE (2010) and CMACE/RCOG (2010) – Primary care services should ensure that all women of childbearing age have the opportunity to optimise their weight before pregnancy. Advice on weight and lifestyle should be given during the family planning consultations, and weight, body mass index and waist circumference should be regularly monitored. Women of childbearing age with a BMI 30+ should receive information and advice about the risks of obesity during pregnancy and childbirth, and be supported to lose weight before conception.*				

Key:
*Gap Analysis (based on need, demand, and supply)
Red = no service provision
Amber = limited service provision
Green = complete service provision

**Priority (based on need, demand, supply, and funding)
Red = high priority
Amber = medium priority
Green – low priority

continued

Pathway Level	Evidence and Best Practice	Need	Current service Provision (supply)	Gap Analysis*	Priority**
Antenatal – Identification, Assessment and Classification	Service provided by midwifery teams, primary care health professionals (e.g. practice nurses, health care assistants and GPs) at booking. Measure height and weight, calculate and document BMI. BMI 30+ – refer to consultant obstetrician to discuss delivery plan and give information about the risks of obesity and pregnancy and how to minimise them BMI 35+ – as above plus refer to specialist care if one or more additional risk factors for pre-eclampsia BMI 40+ – as above plus arrange antenatal anaesthesia review. *NICE (2010) and CMACE/RCOG (2010) – All pregnant women should have their weight and height measured using appropriate equipment, and their body mass index calculated at the antenatal booking visit. Measurements should be recorded in the handheld notes and electronic patient information system.*				

continued

Pathway Level	Evidence and Best Practice	Need	Current service Provision (supply)	Gap Analysis*	Priority**
Antenatal Care – Tier 1	Services provided by frontline staff such as midwifery teams, and primary care teams. The service is usually conducted 1:1 with the woman (and partner) where they should be provided with accurate and accessible information about the risks associated with obesity in pregnancy and how they may be minimised. *NICE (2010) and CMACE/RCOG (2010) – Management of women with obesity in pregnancy should be integrated into antenatal clinics, with clear policies and guidelines for care available. All pregnant women with a booking BMI 30+ should be provided with accurate and accessible information about the risks associated with obesity in pregnancy and how they may be minimised. Women should be given the opportunity to discuss this information.*				
Antenatal Care – Tier 2	Multi-component (nutrition, physical activity, and behavioural change) interventions that may take place in community or acute setting, and may be run by non health care professionals, although a health care professional (e.g. a midwife) should be present.				
Antenatal Care – Tier 3	Specialist multi-disciplinary service (dietetics, psychology and physiotherapy/ specialist physical activity) and obstetrician. *CMACE/RCOG (2010) – Pregnant women with a booking BMI 35+ should give birth in a consultant-led obstetric unit.*				

continued

Pathway Level	Evidence and Best Practice	Need	Current service Provision (supply)	Gap Analysis*	Priority**
Antenatal Care – Tier 4	Specialist multi-disciplinary service (dietetics, psychology and physiotherapy/ specialist physical activity) and obstetrician and anaesthetist. *CMACE/RCOG (2010) – Pregnant women with a booking BMI 40+ should have an antenatal consultation with an obstetric anaesthetist.*				
Postnatal care and maintenance	Variety of services provided via existing or new services within the borough (e.g. structured physical activity sessions) to ensure women lose weight gained during pregnancy and achieve their healthy weight, and maintain their healthy eating and exercise behaviours. This should				

Given that there is currently limited evidence and guidance available on maternal obesity care pathways, the tiered structure outlined above is based primarily on examples from local areas. Furthermore, implementation of tiers 2, 3 and 4 will depend on service provision and referral processes, which will vary across acute trusts within local areas.

Appendix G: Training needs gap analysis by staff group

For each staff group, a list of all staff will need to be obtained and their individual training needs identified in order to complete a full training needs gap analysis.

Staff group	Estimate number of staff by staff group	Level of training required for each staff group – see table 2.4		
		1	2	3
Primary Care Teams • GP • Practice nurses • Health Care Assistant				
Health Trainers				
Schools Nursing Teams				
Health Visiting Teams				
Midwifery teams (community and acute)				
Dietetics				
Psychology				
Physiotherapy				
Physical Activity Specialist				
Community Paediatrics				
Paediatrics				
Pharmacy				
Allied Health Professionals				
Leisure Centre Staff				
Healthy Schools Team and Schools Sports Coordinators				
Pastoral Care Teams				
Total number of staff				

The above list should not be considered exclusive; further staff groups are likely to be identified by local areas.

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Appendix H: Training event checklist

Checklist	Tick once complete
Budget confirmed	
Agenda and content	
Agree trainers	
Venue	
I.T. equipment, flipcharts etc	
Refreshments/catering	
Advertising and marketing (incl flyer)	
Registration process (related to training needs gap analysis)	
Training materials (e.g. scales, tape measures, centile charts)	
Attendance sheet	
Evaluation forms	

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Appendix I: Launch and training events log

Training or launch event (incl date of event)	Level of training (e.g. 1,2 or 3)	Trainers	Venue	Attendance by staff group	Evaluation feedback

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Appendix J: Monitoring and evaluating the pathway

Some examples have been provided within the template to provide some ideas of possible indicators and to assist with completing the template in full.

Pathway Level	Performance Indicator – quantitative or qualitative (output, impact and outcome measures)	Method of Data Collection	Timing of collection (e.g. end of programme, quarterly, annual	Who will collect the data and how it will be reported to the commissioner
Prevention	*e.g. % uptake in physical activity participation*			
Identification, Assessment and Classification	*e.g. % of overweight and obese children in the borough*			
Tier 1	*e.g. % of primary care staff conducting brief interventions* *e.g. numbers of frontline staff attending obesity care pathway training* *e.g. qualitative feedback (interviews or survey) of frontline staff views on using pathway*			

continued

Pathway Level	Performance Indicator – quantitative or qualitative (output, impact and outcome measures)	Method of Data Collection	Timing of collection (e.g. end of programme, quarterly, annual	Who will collect the data and how it will be reported to the commissioner
Tier 2	*e.g. % of patients referred (and referral source) to the service* *e.g. % of inappropriate and appropriate referrals (appropriateness of referrals should increase over time)* *e.g. % of patients achieving 5% weight loss at 3 months (adult)*			
Tier 3	*e.g. % of patients with improved self-esteem (using a validated questionnaire)* *e.g. % of patients with improved resting and recovery heart rate*			

continued

Appendix J

Pathway Level	Performance Indicator – quantitative or qualitative (output, impact and outcome measures)	Method of Data Collection	Timing of collection (e.g. end of programme, quarterly, annual	Who will collect the data and how it will be reported to the commissioner
Tier 4	*e.g. % of patients referred from tier 3 to tier 4 (i.e. unsuccessful at tier 3) (instead of directly to tier 4.*			
Maintenance	*e.g. % of completers who are referred into maintenance and do not increase BMI/weight after 3 months*			

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