Consistent delivery of healthy weight messages to pregnant and postpartum women

A local resource implementation evaluation commissioned by Public Health England

Undertaken by Teesside University

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Executive Summary

Introduction: Maternal obesity increases the risk of a number of serious child and maternal complications. Currently 60% of women in England have excess weight, leading to more women entering pregnancy with excess weight: with around 50% of women being overweight when they become pregnant, and 1 in 5 women presenting with obesity at their 12 week booking appointment. Obesity (having a BMI over 30kg/m^2) both during and before/after pregnancy is also associated with health inequalities, with a higher prevalence among older women, those residing in the most deprived areas, or of Black or Asian ethnicity. In 2018 Public Health England (PHE) commissioned a mapping of healthy weight services in England before, during and after pregnancy, which demonstrated a lack of services specifically targeting women of child bearing age with a higher BMI. This research highlighted the need for an increased focus on practitioner level action, and appropriate guidance to support professionals to take action to address maternal and child obesity. Concurrently, the PHE guidance: 'Promoting a healthier weight for children, young people and families: consistent messaging' was developed. This study evaluates the local implementation of this resource.

Aim: To help develop and evaluate approaches that support the systematic and consistent delivery of healthier weight messages in two local pilot areas.

Methods: Two local areas (Manchester and North Yorkshire) were selected to represent areas with contrasting socio-demographics, council structure and geography. A local implementation development workshop was held within each of the two pilot areas with local public health midwives, health visitors and early years staff. The workshops were used to familiarise the professionals with the healthy weight messaging resources, and to start to develop a plan for implementation of the resource locally. Each pilot area was then tasked with developing and delivering their local implementation plan.

Manchester produced a maternal postnatal health record, which is integrated into every hand-held maternity record, and provides a means of supporting the transition from midwifery to health visiting services. The resource incorporates clear simple messages, supported by simple locally tailored graphics to support conversations on and plan actions towards patients achieving a healthy weight and improving general wellbeing.

North Yorkshire provided a set of the PHE healthy messaging resources to the health care workers (midwives, health visitors and early years workers) across the county and supported local implementation through a short training video. The video provided a 15-minute presentation on the importance of tackling obesity and inequalities in North Yorkshire, and their healthy weight strategy; an explanation of the resource; alongside tips and resources to support local implementation of the healthy weight messages into routine practice.

An online survey, co-developed with workshop attendants, was used to capture learning around the use, implementation and potential impact of locally developed resources. With further insights gained from in-depth interviews with key stakeholders from each site.

Findings: Evaluating the impact of the local resources was a significant challenge in both areas due to the unforeseen impact of the snap general election in 2019, followed by the COVID-19 pandemic outbreak in 2020, which impacted on the project time frames and the ability to acquire any meaningful outcomes data. In the end, the online survey was completed by five participants, and four participants took part in the interviews, which gave rise to the following insights, which were further supported by evidence collated from an additional nine independent case studies from across England:

1) There is a need for further training to support the local implementation of healthy weight messages before, during and after pregnancy;

2) There is a low level of local awareness of the PHE healthy weight messaging resources;

3) Training should be standardised across all health professionals and include techniques such as motivational interviewing;

4) Local training resources must provide clear signposting to relevant support services;

5) Partnership working is important in engaging and mobilising the relevant workforce;

6) Co-producing local resources with delivery staff and target patient groups is strongly advocated;

7) Sufficient time should be allocated to the development and evaluation of local resources.

Conclusion: This evaluation highlights the need for further development and evaluation of local resources to support the implementation of the healthy weight messaging pre, during and post pregnancy. The report provides useful learning and examples of emerging good practice from the two pilot case studies, alongside other independent case studies from across England. These have been used to formulate local and national recommendations that will help support future local implementation activity.

Lay summary

Why is this work important? Currently around 1 in 5 women are living with obesity (having a BMI greater than 30kg/m^2) and 1 in 4 are living with overweight (having a BMI ≥25 kg/m^2) when they attend their 12 week booking appointment. Obesity during pregnancy can affect the health of mum and baby. We also know that women who are older, live in deprived areas, or are from a Black or Asian community are more likely to have obesity, so it is important that these women are supported, and the first step in providing weight management support is to have a conversation about the importance of being a healthy, or healthier, weight.

Why is this work needed now? In 2018 PHE found that health care workers wanted help in having a conversation about the importance of healthy weight with adults and children. As a result they produced a toolkit to help health care workers discuss weight with families. This study looks at how local areas can use this toolkit to help their healthcare workers (e.g. midwifes, health visitors and early years workers) start conversations about the importance of healthy weight before, during and after pregnancy.

What did this study do? This study helped two local areas (Manchester and North Yorkshire – which were selected because they are very different in terms of population diversity and rurality) to create and test a local tool to help the healthcare workers in their area have positive conversations about the importance of a healthier weight before, during and after pregnancy. We did this by running two workshops to understand what support local health care workers needed.

Manchester then developed a maternal postnatal health record, which was added to every hand-held maternity record. The record contains short, clear messages, supported by simple locally tailored images to support conversations on, and plan actions towards, mums working towards becoming a healthier weight and feeling better. North Yorkshire gave a printed set of the PHE healthy weight messaging toolkit to their health care workers along with a short training video which told them why tackling obesity is important, how the toolkit can help, and gave some useful tips and signposts.

What did we find? We surveyed five and interviewed four health care workers. Learning from the survey, interviews and nine other similar projects from across the country found:

1) There is a need for training to support local health care workers in having positive conversations about healthy weight before, during and after pregnancy;
2) Mums who received healthy weight conversations, viewed them positively;
3) Before the workshops, many people didn't know about the toolkit, and it is important to change this, so more health care workers know about, and can effectively use, the PHE toolkit to make healthy weight conversations consistent across the country;
4) Local training must provide clear signposting to support services, and include examples of how to start conversations and how to help mums with their weight.

5) Partnership and co-production working with health care staff and patient is extremely important.
6) It is important to allow sufficient time to develop, test and refine local support tools.

Introduction

Maternal obesity can impact adversely upon maternal and child health[1, 2], by increasing the risk of a number of complications which include gestational diabetes, thromboembolism, miscarriage, pre-eclampsia, foetal macrosomia, still-birth, congenital abnormality, and maternal and infant death. Thereforeconversations about the importance of healthy weight should ideally start pre-pregnancy, and continue throughout pregnancy and the postnatal period.

Currently 60% of female adults in England have excess weight[3]. The increasing prevalence of overweight and obesity in women of childbearing age is leading to more women entering pregnancy with excess weight[*], with 27.4% of women at the 12 week pregnancy booking appointment presenting with excess weight: 18.3% with obesity, and 3.3% with severe obesity[3]. Obesity prevalence both during and before/after pregnancy is also associated with significant health inequalities, with higher prevalence among older women and those residing in the most deprived areas, or of Black and Asian Ethnicities[2, 3]. Women who fail to lose excess weight postnatally, or experience further weight gain, remain at continued risk in any subsequent pregnancies. This consequently has a serious impact on maternal and child health, and supporting services.

Children who live with at least one parent or carer who suffers from obesity, are at a higher risk of developing obesity themselves. It is therefore essential to halt the intergenerational transition of obesity, by tackling excess weight across the life course. Health professionals and the wider public health workforce play a critical role in this action, ensuring consistent evidence-based healthier weight messages are delivered to: women of child bearing age, pregnant women, children, young people and families. The Childhood Obesity Plan[4] highlights the important role professionals play in supporting families to achieve a healthier weight. It calls for action in supporting health professionals to feel confident discussing nutrition and weight issues with children, their families and adults. PHE has therefore published a suite of resources to support professionals to provide the consistent delivery of a core set of healthier weight messages throughout the life course. This suite of resources is part of PHE's 'All Our Health' call to action[5] for health and care professionals.

Whilst some health or care professionals may be confident in discussing healthier weight and delivering evidence-based messages, research with midwives[6] has identified barriers, which include a lack of confidence and knowledge. This research highlighted a need for simple, evidenced-based guidelines and training through various formats to enable midwives to raise the topic of healthier weight sensitively. In support of this, there is anecdotal evidence from across the system, that reluctance in having these conversations exist, and that guidance and support on the practical delivery of such messages would be welcomed.

[*] Overweight/Obesity defined as having a BMI ≥25 kg/m^2 / ≥ 30kg/m^2

Although evidence demonstrates that most adults with overweight or obesity find sensitive conversations about healthy weight appropriate and helpful, and brief interventions in primary care can lead to positive weight outcomes[7], this evidence is scarce during the pregnancy and postpartum period. Therefore, in 2018 PHE commissioned a mapping of healthy weight services in England before, during and after pregnancy[8]. This research demonstrated that whilst a variety of services aimed at helping people to eat a balanced diet and increase physical activity exist, few of these specifically targeted women of child bearing age with a BMI ≥25kg/m² (overweight), and service provision was inconsistent across the country. The research further recommended that 'national educational resources should be developed to support women and healthcare professionals in delivering support around healthy maternal weight, that is relevant to pre-pregnancy, pregnancy and the postpartum period. This research highlighted the need for an increased focus on practitioner level action, and appropriate guidance to support professionals to take action to address maternal and child obesity. Concurrently, the PHE guidance: 'Promoting a healthier weight for children, young people and families: consistent messaging'[†] was developed. This study evaluates the local implementation of this resource.

Aim and objectives:

The aim of this study was to help develop and evaluate approaches that support the systematic and consistent delivery of healthier weight messages in local areas.

The objectives of this study were to:

1. Work with two demographically contrasting pilot sites to ensure training uses the published resources, and to document learning from the local implementation planning and delivery process.
2. Work with pilot sites to consider how best they can target resources in order to address local needs and priorities, considering the health inequalities associated with maternal obesity.
3. Develop materials (practice case studies, infographic and short talking head film) to share learning, in order to support the wider system including local maternity and early years systems to embed prevention within their transformation plans.

Methods

A co-production approach was undertaken to co-develop and deliver this multi-stage project (see logic model in Appendix 1):

[†] https://www.gov.uk/government/publications/healthier-weight-promotion-consistent-messaging

Stage 1: Local Authority selection

Selection criteria: One urban and one rural pilot site (with contrasting socio-demographics, council structure and geography), were required to explore local delivery of the healthy messaging in areas with contrasting delivery and inequality challenges. The following two local authorities were therefore selected:

1. **Manchester City Council:** Representing a predominantly urban community, with high socio-economic deprivation and ethnic diversity.
2. **North Yorkshire County Council:** Representing a largely rural, more affluent and less ethnically diverse community in comparison to Manchester.

Stage 2: Developing local implementation models

A local implementation development workshop was held within each of the two pilot areas. Local public health, midwifery, health visiting and early years staff were invited to attend each workshop, which was facilitated to achieve the following objectives:

- To familiarise health and care professionals with the healthy weight messaging resources, and gain some insight into current knowledge and confidence in delivering healthy weight messages;
- To gather views on how the healthy weight messaging resources could be used locally – thinking particularly about their use across the life course and addressing inequalities;
- To develop a tailored local implementation and delivery plan for each local area;
- To gain views to inform the evaluation survey questions and outputs.

Learning from each workshop was captured in a learning template (Appendix 2), and an implementation plan for each area was produced. Each area was then provided with up to £5K to resource the development of their local implementation plan.

Stage 3: Evaluation of local implementation

The development and implementation of the local resources were evaluated via: 1) an online survey (delivered via www.onlinesurveys.ac.uk) (see Appendix 3), co-developed with workshop attendants, to capture learning around the use, implementation and potential impact of locally developed resource within different delivery settings; and 2) semi-structured interviews with key local stakeholders, to gain greater insight into the barriers and facilitators experienced when developing and implementing their tailored resources locally, and capture learning to support the wider implementation of the PHE healthy weight messaging resources locally (see semi-structured interview schedules in Appendix 4).

The quantitative survey data was analysed using descriptive statistics, with any free text responses coded into themes. The interviews were conducted one to one over the telephone

or face to face. All interviews were audio-recorded and transcribed to provide verbatim data which was analysed using a framework approach[9] (see Appendix 5), to identify key themes, that were contextualised within survey and workshop data to develop the two local implementation case studies. Each case study followed the standard PHE case study template and the consolidated criteria for reporting qualitative studies (COREQ)[10] was completed (see Appendix 6).

Ethical approval for this evaluation was sought from the Teesside University's School of Social Science, Humanities and Law ethics committee.

Findings

It is important to note, that the subsequent development and delivery of the local implementation resources unfortunately coincided with the snap general election in December 2019, and the COVID19 outbreak. These unforeseen circumstances significantly impacted upon the time local areas had to implement their resources prior to the evaluation (which were considerably shorter than initially planned), and the response rate to the participant survey and interviews (which was significantly less than originally anticipated).

A local implementation development workshop was undertaken within each pilot area during October and November 2019 and four participants (two from each pilot area) agreed to be interviewed. Key learning from the development workshops and stakeholder interviews informed the construction of the two detailed case studies described below.

The online survey was launched at the end of February 2020, following the launch of the local resource in each area at the end of January 2020. As only five participants (three from Manchester) took part in the online survey it was not possible to analyse the results by locality, as such the collective findings are reported. Collectively the survey represented views from two health visitors and three midwives. Of the three respondents who said they had received local training in healthy weight messages two reported this to be very helpful and the remainder was ambivalent. Four of the five respondents said they had received the locally tailored resources, three of whom found them very helpful. When asked about use of the PHE national healthy weight resources, three respondents had used them and of these most found them to be not very helpful or were ambivalent. Reasons for this were described as the resources being too lengthy and too vague and also that they were not just targeted to healthy weight. When asked as to whether respondents felt equipped to undertake healthy weight messages with families from Black, Asian and Minority Ethnic (BAME) groups or who have low literacy skills, four out of five felt they were confident. The respondent who was not confident found it difficult to know what is important in certain cultural groups. When the respondents were asked about their confidence in delivering the messages to families in poverty (or without adequate cooking skills and/or equipment), two out of the five felt unconfident, citing challenges of discussing healthy eating with families who may use food banks. Of the four respondents who had recently delivered healthy weight messages pre,

during and post pregnancy, half felt the messages were received well or very well and half were ambivalent. When asked, via the online survey, about which populations respondents encountered difficulties with when delivering the healthy weight messages, groups included women with obesity, families with different culture expectations, and women who were unemployed or who have complex family circumstances. These difficulties were not elaborated further on, except to note that this was not a reflection on their perceptions of their own knowledge or confidence to deliver these messages, more a reflection on which groups they felt it was difficult to deliver to. General barriers to delivering the messages included a lack of time, worry about upsetting the patients, cultural barriers, lack of resources and knowledge about suitable support services. All respondents rated themselves at least 7/10 in their knowledge, and at least 6/10 in their confidence in delivering healthy weight messages.

Key learning points from the online survey:

- **Generally those who were trained in healthy weight messaging found it helpful.**
- **Practitioners did not find the PHE healthy weight messaging guide helpful on its own (amongst other things they felt it was "too wordy", "too long", "too vague").**
- **Healthy weight messaging appeared to be well received by recipients.**
- **General barriers to healthy weight messaging include a lack of time, supporting resources, cultural barriers and fear of upsetting patients.**

Case Study 1 – Manchester

Background

Manchester represents a predominantly urban, ethnically diverse population, with high levels of socio-economic deprivation: with 33.4% of the population from BAME communities[11]; is one of the 20% most deprived authorities in England, with 27.1% of children under 16 living in low income families, and where healthy life expectancy and breastfeeding rates are significantly worse than the national average. These are important considerations given the strong association between obesity, deprivation and ethnicity, with higher prevalence in certain Black and South Asian communities as well as those living in the most deprived areas[12]. Prevalence of childhood obesity (26.3% of Year 6 and 11.9% of Reception)[13], and inactivity in women (27.9%)[12] in Manchester are significantly worse than England as whole. Manchester therefore represents a locality with significant challenges in terms of reducing childhood obesity and improving activity levels in women, ensuring action is tailored to address any socio-demographic inequalities across the life course.

Practice development

An implementation development workshop was held in Manchester during October 2019, and was attended by 21 participants representing public health, midwifery, health visiting and early years. During the workshop 18/20 completed an anonymous survey to assess baseline competence and confidence in delivering healthy weight messages, which resulted in a mean

score of 7/10 for competence and 6.7/10 for confidence (where 1: very poor and 10 was excellent). As many of the participants were not familiar with the PHE healthy weight messaging resources, time was spent familiarising the participants with the resources, and discussing how they could be used locally. Participants then broke into professional groups to develop their own local implementation plan: considering how the resource could be tailored to meet the needs of their populations, tackle inequalities and be extended to the universal plus and universal partnership plus services within the Healthy Child Programme. The outcomes from this session are documented in Appendix 2, but resulted in the following key points:

1) the requirements for local implementation resources were very similar across all professional groups, it was therefore felt that one resource should be developed and used across professional groups;

2) participants felt more training in delivering healthy messages would be useful, and it would be beneficial if this training included examples of non-stigmatising opening statements and the use of motivational interviewing techniques;

3) the resource should provide signposting and links to relevant support services;

4) the resource should be visual to overcome literacy issues, and illustrations must provide an inclusive representation of the populations served locally;

5) it was felt it would be useful for any resource to be translated, however the logistical difficulties of this were acknowledged given the significant number (>100) of languages spoken locally, health care teams also regularly use translators as part of their consultations which was felt may bridge this gap.

At the end of the implementation planning session, participants helped to co-develop the online survey that was used as part of the local evaluation (results presented above). A local implementation resource development working group was then convened with a small group of workshop participants representing public health midwifery, health visiting and early years. The resulting output was a maternal postnatal health record, which forms part of every hand held maternity record, and provides a means of supporting the transition from midwifery to health visiting services. The resource provides holistic support for post maternal wellbeing that converts learning from the PHE healthy messaging resources into a patient facing resource that will support conversations around healthy weight conversations, Chief Medical Officers' guidelines for physical activity[‡] and the Eatwell guide[§]. The resource incorporates clear simple messages, supported by simple locally tailored graphics, with areas for local signposting and links to existing supporting resources.

[‡] https://www.gov.uk/government/publications/physical-activity-guidelines-uk-chief-medical-officers-report

[§] https://www.gov.uk/government/publications/the-eatwell-guide

Measuring impact

As the evaluation was limited by the very short timeframe (one month) in between the launch of the local resource and the evaluation data collection, and the smaller than anticipating responses rates, so too was the ability to measure impact. There were however, some useful learning points from the in-depth interviews which are summarised below:

Both respondents felt the Manchester resource was useful and timely, as a link to their new 'Manchester Active' service could be inserted, which will signpost mums to further support resources. Respondent A also felt that the local branding helped give it legitimacy: "*people would instantly understand that it's from the council…*" "*we have a strong sense of place and people would trust it because of that"* [participant A]. The other respondent (B) recalled asking one of the mum's under her care, for her opinion of the new resource and reported that she "*certainly didn't say anything negative about it"* [participant B] and reported that her patient remembered to bring it with her red book at the next appointment (although she hadn't filled anything in). When using the tool with the mum, respondent B felt it was useful in helping to plan activities, but felt we still need to understand how much mums will value the resource. As such this respondent mentioned that they were hoping to introduce a text survey to gain feedback from more mums. When the resource was shown to some health visiting colleagues they expressed concern about the additional time it might take, but respondent B was quick to point out that the resource is a tool to support current practice not additional work to undertake. This respondent felt training was important, a theme that was echoed in the comments made by respondent A, who was frustrated in not being able to complete the YouTube training video in time, although this is something they are still planning to do post-evaluation.

Key learning about impact:

1. **Early indications suggest the resource could be useful to mums and practitioners.**
2. **Local branding and ensuring translation to different languages is important in gaining local 'buy in'.**
3. **Training is needed to support wider implementation.**

Learning

Insights from the two in-depth stakeholder interviews from Manchester, provide some key learning points which are presented in Table 1, alongside accompanying recommendations.

Table 1: Learning from stakeholder interviews from Manchester

Theme	Key learning	Future recommendations
Development workshops	There was a lack of clarity in the workshop brief.	Plan for a longer lead up time, which includes a pre-workshop meeting and briefing to ensure everyone is clear about the purpose and expectations of the day.
PHE resources	PHE healthy messaging resources were liked but one interviewee expressed concern around how easy they are to apply in practice.	There is a need for PHE to allow local tailoring for their implementation resources. PHE should work in partnership with practitioners to develop these resources.
Local resource development	Respondents felt the extended rounds of comments and feedback from PHE added further delay and complexity, particularly given the resource was being launched as a pilot, so would be reviewed and refined as a matter of course.	PHE to collate and provide feedback within a pre-agreed timeframe, and allow a more flexible approach to the local resource development, and allow local piloting to inform ongoing development.
Diversity of the local tool	Whilst the resource used limited text, and inclusive graphics, both respondents felt they would like to do more to improve the use of the resource within the diverse community, but were limited by time.	It is important to build in sufficient time to facilitate co-production with a diverse range of patient representatives to co-create and test new resources. Connecting with the local Maternity Voices Partnership team to do this could be beneficial.

Case Study 2 – North Yorkshire

Background

North Yorkshire represents a largely rural, relatively affluent largely white British population, as one of the 20% least deprived authorities in England, with only 5.6% residents not of white British ethnicity[14]. Although North Yorkshire residents experience better health outcomes than England as a whole, 9.8% of children still live in low income families, and 17.1% of Year 6 and 8.9% of children have obesity[15]. Being the largest county in England, with 85% of the county classified as very rural or super-sparse, and a population density five times below the national average[16], presents a different set of service delivery challenges and population needs, when compared to more diverse urban geographies.

Practice development

An implementation development workshop was held in North Yorkshire during November 2019. Seven participants attended the workshop (with five having frontline roles, (although only two routinely working with pregnant women) and two in managerial positions), representing public health, midwifery and early years. A second workshop was planned later in November to increase local input but had to be cancelled due to insufficient numbers, which may have been a result of reviews within council at the time, which may have changed staff focus.

During the workshop five participants completed the anonymous survey to assess baseline competence and confidence in delivering healthy weight messaging, which resulted in a mean score of 5.6/10 for competence and 5.8/10 for confidence. None of the participants were aware of the PHE healthy messaging resources prior to the workshop, (although these had been published fifteen months prior (June 2018) on the .gov.uk website) so some time was spent familiarising with, and discussing the resources and how they could be implemented locally. All participants then worked together to start developing an implementation plan for North Yorkshire. The outcomes from this session are documented in Appendix 2, but resulted in the following key points:

1) It was felt that all healthcare workers should receive standardised training, and that online would be a useful delivery mechanism, and could include motivational interviewing techniques and the Making Every Contact Count approach.
2) It would be helpful if more training was provided on the incorporation of healthy weight messaging into making every contact count.
3) It was felt that the healthy weight messaging should be used as part of very brief advice to patients, as lengthy messages aren't well received.
4) There was consensus that the PHE materials should form the base of the training provision, although it was flagged that some of the images and text would need to be changed (i.e. anything alluding to formula feeding would need to be removed) to ensure trusts remain compliant with the UNICEF Baby Friendly accreditation[**] policy.
5) If patient facing resources are developed it would be useful to produce these in a choices of languages, and also ensure they signpost to relevant supporting services.

Two members of the workshop were tasked with developing and producing the local training resource, which resulted in the development of a printed set of the PHE resources which were delivered to the health care workers (midwives, health visitors and early years workers), supported by a short implementation video. The video provided a 15-minute presentation that: introduced the importance of tackling obesity and inequalities in North Yorkshire, and their healthy weight strategy; provided an explanation of the pilot objectives; alongside tips and resources to support local implementation of the healthy weight messages into routine practice.

[**] https://www.unicef.org.uk/babyfriendly/accreditation/

Measuring impact

As the evaluation was limited by a very short timeframe (one month[††] in between the launch of the local resource and the evaluation data collection), and the smaller than anticipated response rates, this impacted significantly upon the ability to measure any tangible impact. The short time frame was due to the (planned) short duration of the project in combination with the aforementioned (unplanned) delays (COVID19 and the snap general election). There were however, some useful learning points from the in-depth interviews which are summarised below.

When asked about the national PHE healthy messaging resources (which were used to support their local training video), participant C felt there remained a gap around how health professionals with their own weight concerns address the issues of a healthy weight with their patients: "*How do you tell someone who's lighter than you, they need to lose weight*" [respondent C]. Both respondents C and D also felt that the current PHE healthier weight infographics they used in their support packs were quite generic and would have liked to have conducted more local tailoring in collaboration with local professionals but felt limited by the time available. Time was also highlighted as a limiting factor in terms of rolling out the local resource to professionals by both respondents C and D. Respondent D provided an example of good local engagement with local health visiting teams that occurred just as the evaluation period ended. Respondent C stated that although 100 packs were sent out and '*it's such a shame there was insufficient time to really test and feedback their use in practice'* [respondent C]. It was however felt that there were many opportunities to build the local healthy weight messaging support into wider agendas such as the healthy child programme.

Key learning about impact:

1. **Early evidence suggests practitioners are interested in delivering healthy weight messages but are constrained by time.**
2. **Training is needed to support wider implementation.**
3. **Some gaps remain around providing more locally tailored resources and support for practitioners delivering healthy weight messages who may be experiencing weight concerns themselves.**

Learning

Insights from the two in-depth stakeholder interviews from North Yorkshire, provide some key learning points which are presented in Table 2, alongside accompanying recommendations.

[††] It is important to note that this also included time to engage and disseminate the pack to the appropriate teams, which occurred in the middle of a council review process.

Table 2: Learning from the stakeholder interviews from North Yorkshire

Theme	Key learning	Future recommendations
Development workshops	There was a lack of clarity in the workshop brief.	Plan for a longer lead up time, which includes a pre-workshop meeting and briefing to ensure everyone is clear about the purpose and expectations of the day.
PHE resources	PHE healthy messaging raised some concerns about alignment with the UNICEF Baby Friendly initiative (i.e. references to formula feeding). There is also an opportunity to facilitate staff deliver messages when the staff themselves have weight concerns.	PHE have now changed the national resource toolkit to align with UNICEF policy and will ensure this is cross referenced in the future. There is a need to support health practitioners raise the issue, when they also have their own weight concern.
Local resource development and dissemination	A co-production approach would be useful in developing locally tailored resources. Videos and links seem to be well received by health professionals and are quick and easy to disseminate.	Future resources should be co-developed with their target audience, with sufficient time built in to achieve this. Future dissemination strategies should continue to use videos and links to facilitate effective uptake and ease of dissemination.

Discussion

Evaluation learning

This evaluation project resulted in the development of two very different localised resources to support the implementation of the PHE healthy weight messaging toolkit. Whilst these approaches were very much tailored to support the very different delivery and population demographic challenges within each of the pilot areas, there was nonetheless some noticeable commonality between the evaluation findings in the two areas. In terms of practice development learning, workshop findings from both areas revealed that: 1) there was a need for further training to support the local delivery of healthy weight messages; 2) there was a low level of local awareness of the PHE national healthy messaging resources; 3) it was felt training should be standardised across all health professionals; 4) health professionals felt that training in motivational interviewing skills and/or MECC would be useful; 5) local training resources must provide clear signposting to relevant support services. Attendees at the workshop, survey and interview participants did not mention any of the professional development learning currently available. Differences in practice development that perhaps reflect the geographical and demographic differences between the two areas

were around: 1) delivery - where online training was highlighted as a preference in North Yorkshire due to their geographically dispersed population; 2) translation – the logistic considerations of translation in Manchester was more significant given their rich diversity with over 100 different languages spoken; 3) use of infant feeding graphics was very tightly scrutinised in North Yorkshire, as they had a commitment to comply with the policies under the UNICEF baby friendly accreditation that had been acquired in local maternity units.

Evaluating the impact of the local resources was a significant challenge, however there was some significant overlap in terms of the key learning from the evaluation process across the two pilot areas that will hopefully better inform future work, these included: 1) the need for longer lead up time, which includes pre-workshop meetings and detailed project briefings to ensure everyone is clear about the purpose and expectations of the proposed work; 2) provide longer development and evaluation timeframes to provide contingency for local or national events or priorities that may impact upon staff time and commitment; 3) ensure any national resource is aligned with any large international accreditation programmes such as the UNICEF baby friendly initiative; 4) build in enough time to work in co-production with both delivery staff and recipient populations to co-develop local resources to ensure they are fit for purpose and meet the needs of all local populations; 5) consider a dissemination strategy that meets the needs of staff and the geography of your target locality.

There is an established need to develop local resources to support the local implementation of the healthy weight messaging pre, during and post pregnancy, particularly given awareness of the resource amongst practitioners in both areas was very low prior to the project commencement. Both local authorities acknowledged their role in disseminating national resources from PHE, but the finding from this evaluation suggest, that locally tailored implementation resources play an important role in gaining local engagement. As a result of this project both pilot sites developed a resource that was tailored to the needs of their locality, an output in which both areas felt will be useful in supporting the local delivery of healthy weight messages, although acknowledged that the final output and evaluation was significantly constrained by the time and unforeseen events. While developing the locally tailored resources was felt to be useful by the two partner sites, it was not a priority, and without this pilot, this would not have happened, particularly as (in some cases) they were unaware about the existing PHE resources. Each site gained some critical insight and learning that will help to inform the future development of these resources and each locality has also identified ways to integrate the training to fit within wider local authority strategies, which will be key in taking this work forward.

Wider learning

In order to contextualise the findings from this evaluation pilot within wider learning, evidence was collated from an additional nine independently conducted local case studies (see Appendix 7) from across England. These case studies provide evidence on the local implementation and impact of healthy weight messaging across a diverse range of locations, settings and contexts. All of the additional case studies have been running for over a year, several of them over many years (case studies 1, 2, 3, 4 & 6), and are therefore able to provide

longer term process and impact evidence. In terms of some of the barriers encountered across the case studies, these included issues around funding, evaluation, and engaging and mobilising the workforce to support the healthy weight agenda. An interesting observation given both of the local pilot sites in this project also encountered difficulties, to varying degrees, in engaging and mobilising the workforce. It was also encouraging to observe considerable overlap between some of the collective learning from the case studies and the key learning and recommendations within this report, with the case studies providing evidence to support how:

- Training in conducting sensitive healthy weight conversations helps to improve health professionals confidence and competence in delivering healthy weight messages before, during and after pregnancy.
- Motivational interviewing, integration with making every contact count and the use of different delivery methods (face to face or digital) can be used successfully in practice.
- Women who have received healthy weight conversations viewed them positively.
- Co-creating local resources and patient facing materials is a critical component that underpinned majority of the case studies.
- The importance of joined up partnership working, and developing a task and finish group to oversee local service/resource development.
- A model of continuous learning, whereby resources are reviewed and improved overtime, can be successfully implemented.

Policy and practice recommendations

At a national level:

- Consider how national organisations can support health care professionals with local implementation of the healthy weight messaging toolkit (including tailoring the materials to suit local requirements).
- Provide a clear brief for local authority partners when commissioning evaluation work, and where possible, allow for longer more flexible approach and timeframe to provide: sufficient lead-in time; a contingency for the impact of local and national events that may reprioritise staff time; and accommodate an evaluation period long enough to comprehensively measure impact.
- Make the case studies from this report centrally available.
- Ensure the content of any national resource is co-developed with local end-users to ensure it can be easily implemented in practice, and aligns with any relevant internationally recognised programmes such as the UNICEF baby friendly initiative.
- Consider producing a national healthy weight messaging webinar with the following content to help support local implementation:
    - Practical considerations (building on examples in this report) on tailoring content to address local delivery challenges and population needs.

  - Motivational interviewing training to provide support in opening sensitive conversations.
  - Practical advice for practitioners delivering healthy weight conversations, whilst struggling with personal weight concerns.
  - Practical nutrition advice for supporting low income families who may use food banks and may have little or no cooking equipment.
  - Cultural considerations when working with families from diverse backgrounds.
  - Practical solutions to overcoming literacy barriers.

At a local level:

- Team leaders or managers should work with local health professionals to engage them in the importance of healthy weight messaging, raise awareness of national resources and seek feedback on the support required for implementation.
- Work with your local patient groups to co-develop any patient-facing resources, to ensure they are appropriate for, and valued by, all target recipients, and ensure any inequalities are addressed.
- Ensure all health professionals are aware of, and can easily signpost into services that may be required to support practitioners delivering healthy weight messages understanding the needs of the local population such as the health inequalities that exist (for example Manchester referenced the Healthy Start scheme in their resource given the lower socioeconomic status of the local population) .
- When developing local resources engage all key local stakeholders, and consider appointing a task and finish steering group to provide project oversight.
- Ensure that evaluation of any new resources is undertaken, so resources can be refined in response to feedback.
- Senior or strategic leaders to use national policies such as the Maternity Transformation Plan, NHS Better Births etc as levers to prioritise this work in line with local strategy/plans. Both pilot sites felt that this work fit well with their current policy and strategies which provided motivation to be involved with this project.

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Appendices

Appendix 1: Project logic model

Stakeholders	Inputs/Resources	Assumptions	Outputs/Activities	Potential Outcomes	Indicators	Sources of Information
• PHE • TU • Case Study site Leads • PH Nurses • Health Visitors • Local maternity services • School nurses • Early years staff • Relevant service commissioners	• Healthy Child Programme roll out • £5k for each case study site • Buy-in from case study sites • PHE – initial contact with case study sites • Time from Project Steering Group • Healthy Conversation Resource Pack	• PHE is successful in gaining buy in from case study sites • Case study sites are on board with the evaluation, and have the resources/capacity to develop follow on resources for local pilots (and local leadership buy-in) • Relevant practitioners attend the workshops • Case study sites • provide the relevant information • Roll out of consistent messaging will help prevent unhealthy weight gain before, during and after pregnancy	• Develop locality selection criteria and agree with PHE • Identify and invite 2 pilot sites • Develop workshop resources and conduct one workshop at each pilot site • Conduct workshops to understand gain insight into awareness of the resources, current knowledge / confidence in healthy weight messaging, how best to implement the resources locally, and inform the evaluation • Develop standardised assessment tools (online survey and interview guide) • Telephone/skype interviews with key stakeholders • Develop accessible materials for maternity and early years workforce (case studies, infographic and talking head)	• **<u>Short term outcome</u>** • Practitioners use the consistent messages which are locally tailored. • Tailored messages are used to tackle inequalities related to maternal obesity • **<u>Medium term outcome</u>** • Practitioner competence and confidence in using the tailored messages to deliver healthy weight messages is improved. • More consistent healthy weight messaging is occurring. • **<u>Long term outcome</u>** • Resources support embedding of prevention into local transformation plans. • A greater number of women are supported to make positive behaviour changes to promote a healthier weight	• Workshop outcomes • Completion of online surveys • Results of interviews	• Relevant Policy – NHS, Government • PHE healthy weight conversation resources (https://www.gov.uk/government/publications/healthier-weight-promotion-consistent-messaging/promoting-a-healthier-weight-for-children-young-people-and-families-consistent-messaging) • Health Child Programme

Appendix 2: Completed learning outcome templates from Manchester and North Yorkshire workshops

Pilot Site: North Yorkshire **Venue**: Council Chambers, Northallerton **Date**: 14.11.2019

Tasks / Action Items *(Led by)*	Outcomes / Key Findings	Comments
Section 1: Welcome, Introductions and some background to the project and objectives of the workshop *(Murali)*	Self-introductions made Murali set the scene for the workshop with a brief background on the necessity and production of healthy weight messages, and the objectives for the day	7 participants in total 2 in direct contact with target population, others – managerial/executive roles Participants were motivated
Quick ice breaker *(Murali)* Quick knowledge and confidence quiz	Murali explained the purpose and instructions for completing the anonymous quiz to assess competence and confidence on delivering healthy weight messages	5 responses received
Section 2: PHE resources *(Murali)* **Familiarising participants with the resources developed by PHE** **1.** Hands up who is aware of them, and who has used them (share experience) **2.** Participants will be given time to go through the resources	Participants were given a copy of the resources Murali briefly explained the contents in the resources and also about the necessity of these resources Participants were asked to share their thoughts on the resources None of the participants were aware of such resources before the workshop	None of the participants were aware about such resources before the workshop Interestingly, the midwives from the group, highlighted that the resources/infographics developed by PHE cannot be used in practice in their trusts as they contain images of bottle feed, which is a major breach of the UNICEF's 'The baby friendly initiative' accreditation

Activity to think about how knowledge and confidence in using the messaging could be improved locally *(Hannah)* **1. *The Mocktail party* – on each flipchart is a question – add at least one post-it note with your thoughts for each question** 1. What are the barriers to using these resources in practice, and how might they be overcome? 2. How do you see yourself using them (e.g. shared screen, patient leaflet, conversation guide, initial appointment, follow up appointments…)? 3. Which professionals should be using them - thinking about how their use be extended to the universal plus and universal partnership plus services within the Healthy Child Programme? 4. Is anything missing that would support their use locally – thinking about your population needs across the life course?	Hannah explained the rules of this 'Mocktail Party' activity Helen and Murali supported and facilitated the activity Most of the participants actively participated by posting more than one point per question Responses can be seen in Appendix 1	Once participants completed populating the flip charts, Murali and Helen quickly rearranged the responses into themes. The following were the outcome from this activity. **Barriers:** Cost and Resource - print ordering resources Confidence and Understanding Pressures time pressures Cultural differences knowledge. Own personal views - Beliefs Individual differences are massive for midwives advice Resources - culturally sensitive. Current have raised BMI offer - Tommy's infographics. 40 BMI James Funded and Dietician - 4 appointments only gaining 5-7 kilos in pregnancy. Statistics on materials are helpful eg. About benefits of exercise. Time pressures - Volume of information, she can digest, competition between public health. Overwhelmed- saturation. **Resources**

5. Is anything missing that would support their use locally – thinking about your population needs in terms of addressing in equalities? **6.** What other resources are you aware of that may also be used to support healthy weight conversations?		NHS and local resources Priority Resources Tommy's resources Webinar - health professionals to access about raising issue of healthy weight on website - its just generally. Local platform 'my little one' Pilot areas height, smoking, can be targeted Email for weight. Physical Activity Healthy Start **How do you see yourself using them** Physical copies Small sections on Social Media NHS In community Public Health Role. Awareness Raising - Marketing - important for commissioners. Social Media and Campaigns - specifically about healthy weight in pregnancy. Format - leaflets not advocated - more smart phone **Which professionals**

		Pre-Conception care really important, n 50% pregnancies are unplanned so by the time it gets to Midwives its too late. Need to embed more prevention. Physiotherapist Whole System Employers OT **<u>Is there anything missing to use locally</u>** Lack of services to refer Simple universal messages
b. Small group work: Quick Clustering and feedback *(Hannah)*	Group feedback and reflection on the activity Participants were asked to quickly reflect on their responses and think of anything they felt is missing They were also explained the rationale of theming the responses and everyone agreed on it. Participants were given individual table containing a *'local implementation and delivery planning grid'*	All participated enthusiastically Since the format was highly interactive, everyone contributed A detailed report on the local implementation and delivery plan is written as a separate document

c. Small group work: Developing a local implementation and delivery plan *(Murali and Helen)* **1.** Completing the life course grid with post-its **2.** Label post its "Must-Could"	The grid contains three questions that will help develop local implementation and delivery of the PHE resources. Responses for these questions are divided based on life course – 'Pre-conception, Pregnancy, Post-natal' Participants were given 15 minutes to populate the table with their personal opinions on adapting, targeting and delivering the resources for clients in different life course in their areas considering the challenges present locally	
Section 3: The evaluation - introduce the participants to the purpose of the evaluation and the online survey *(Murali)* **1.** The online survey was printed out on A3 paper and placed at each table for the participants to have a look at **Comments and feedback about the online survey**	Murali explained the background for the evaluation and the necessity of it in this evaluation Participants were each given a copy of the online survey In general the participants felt the survey is a feasible option to collect evaluation data Participants were requested to send any other feedback on the survey to Helen Ingle, who will then pass it on to Teesside team	Due to lack of time, detailed feedback on the online survey could not be obtained. But, the participants were informed about the option to send their feedbacks to Helen Ingle. However, generally the participants expressed a positive opinion on the survey contents
Section 4 – Developing supporting resources *(Murali and Helen)* **1.** Participants were informed about the resources to be developed (i.e. the	Murali explained about the next steps in the evaluation and on the resources that will be developed from the study to support healthy weight conversations in and around pregnancy. Helen explained about the consent forms and PIS for the interviews during December/January and	Participants were happy to take part in the online survey and also the interviews All participants read the PIS and signed the consent forms

case studies report, infographic summary and talking head).	were made aware of their choice to accept or decline the interview request Murali also promised to share these resources with the attendees of the workshop for their feedback, before submitting it to PHE	
Final Q&A, round up, Concluding Remarks and next steps *(Helen)*	Helen Moore made the concluding remarks. Helen Ingle will be in touch with the participants to develop local delivery plans and to disseminate other information	

Notes on local implementation plan from the North Yorkshire workshop:

As the attendee numbers were low, and only two among them deal with pregnant women/women planning to get pregnant, the participants were asked to form a single group and populate the grid. The plan is prioritised into must do's and could do's keeping in mind the funds available to resource their local implementation and delivery plan.

Pictures from the workshop showing the flipcharts containing the local implementation plans are attached below.

Learning notes from the North Yorkshire workshop:

- All the participants actively contributed towards developing this local implementation and delivery plan, keeping in mind the life courses and local challenges and barriers. They were also tasked to create this plan within the funds budgeted for this purpose.
- Due to the low numbers, the participants were not divided according to the job roles (midwives, health visitors, early-years). However, they were encouraged to discuss among themselves and populate the grid with points that will suit the entire workforce that handles women before, during and after pregnancy.

The following is the consolidated learning from the workshop that will form the core-framework to develop the local implementation and delivery plan:

Training for the healthcare workers:

1. Participants felt that the healthcare workers must receive 'standardised' training, thereby ensuring consistent messages are delivered.
2. Developing online resources that can be used to train the workforce.
3. Suggested to conduct training programmes on motivational interview techniques, which can improve the confidence to discuss and deliver healthy weight messages.
4. More training is needed on the 'Make Every Contact Count' approach

Resources/Infographics

1. Participants felt that the resources developed should be helpful in delivering 'very brief advice' and must be 'concise' as lengthy messages are not well received
2. As part of the delivery of healthy weight messages, the currently available PHE resources must be used as a base and local resources to be developed
3. However, the resources from PHE contains certain graphic elements, which are a breach of UNICEF's NHS trusts accreditation policies. PHE to comment further on this.
4. Resources must be produced in a choice of languages.
5. The resources must signpost users to local weight management groups.

Additional Observations/Feedback:

1. Considering the tight timeline for the data collection (online survey and interview), it was suggested by the participants to implement the plans in one or two localities, and evaluate the healthcare workers from those areas, rather than trying to implement it across North Yorkshire.
2. Helen Ingle felt, developing exclusive resources will demand more time, and hence wanted to know the possibilities of sharing the resources developed by Manchester as part of the implementation.
3. The public health team in NYCC have already developed a webinar for healthcare professionals regarding healthy weight across the population. Possibilities of tweaking the same webinar to suit the current training and implementation plans were also discussed. These plans are to be discussed with Prof Ells and PHE in due course.

North Yorkshire workshop visuals:

Pilot Site: Manchester **Venue**: Wythenshawe Forum, Manchester **Date**: 18.10.2019

Tasks / Action Items *(Led by)*	Outcomes / Key Findings	Comments
Section 1: Welcome, Introductions and some background to the project and objectives of the workshop *(Kate)*	Self-introductions made Kate set the scene for the workshop with a brief background on the necessity and production of healthy weight messages, and the objectives for the day.	Mixed crowd containing midwives, health visitors and early years health workers Midwives were almost half of the total participants Participants looked motivated
Quick ice breaker *(Louisa)* Quick knowledge and confidence quiz	Louisa explained the purpose and instructions for completing the anonymous quiz to assess competence and confidence on delivering healthy weight messages	All except two of the participants completed the quiz
Section 2: PHE resources *(Louisa)* **Familiarising participants with the resources developed by PHE** **4.** Hands up who is aware of them, and who has used them (share experience) **5.** Participants will be given time to go through the resources	Participants were given a copy of the resources (they already received copies of the same via email ahead of the workshop). Louisa explained the contents in the resources and also about the necessity of these resources Participants were asked to share their thoughts on the resources Almost all the participants were not aware of such resources before the workshop Most of them thought they are voluminous to use directly in front of the patient/client, and may need adaptations	Participants were not aware about such resources before the workshop

Activity to think about how knowledge and confidence in using the messaging could be improved locally *(Hannah)* ***The Mocktail party* – on each flipchart is a question – add at least one post-it note with your thoughts for each question** What are the barriers to using these resources in practice, and how might they be overcome? How do you see yourself using them (e.g. shared screen, patient leaflet, conversation guide, initial appointment, follow up appointments…)? Which professionals should be using them - thinking about how their use be extended to the universal plus and universal partnership plus services within the Healthy Child Programme? Is anything missing that would support their use locally – thinking about your population needs across the life course?	Hannah explained the rules of this 'Mocktail Party' activity Louisa and Murali supported and facilitated the activity Most of the participants actively participated by posting more than one point per question Question 2 and question 6 received maximum number of responses Responses can be seen in Appendix 1	Midwives and health visitors showed more enthusiasm in comparison with early years health workers

Is anything missing that would support their use locally – thinking about your population needs in terms of addressing in equalities? What other resources are you aware of that may also be used to support healthy weight conversations? **b. Small group work: Quick Clustering and feedback *(Hannah)***	Group feedback on the activity received All participants considered it a good way to start thinking about healthy weight conversations	All participated enthusiastically
c. Small group work: Developing a local implementation and delivery plan *(Hannah)* **6.** Completing the life course grid with post-its **7.** Label post its "Must-Could" **Whole group consolidation – consensus on the musts - who should deliver them, how and when *(Hannah)***	Participants were given individual tables containing a *'local implementation and delivery planning grid'* The grid contains three questions that will help develop local implementation and delivery of the PHE resources. Responses for these questions are divided based on life course – 'Pre-conception, Pregnancy, Post-natal' Participants were given 5 minutes to populate the table with their personal opinions on adapting, targeting and delivering the resources for clients in different life course in their areas considering the challenges present locally Following this, participants were grouped as per their roles, and one facilitator was assigned to consolidate the plans from each group into a flipchart using sticky notes (The themes and plans identified are written separately)	Since the format was highly interactive, everyone contributed to the development of a local implementation plan
Section 3: The evaluation - introduce the participants to the purpose of the evaluation		

and the draft Standard Evaluation Framework *(Murali)* The draft SEF will be printed out on A3 paper and placed at each table for the participants to have a look at **Comments and feedback about the SEF and the format of the SEF *(Murali)*** We will ask each group of participants to answer the following questions about the SEF: STRESS THE IMPORTANCE OF PARTICIPANT FEEDBACK Would you change, delete or add to any of data fields we are proposing to collect? Do you foresee any logistical barriers to collecting the data proposed – if so what are they and how could they be overcome? How could this framework be integrated into your implementation plan? What format should the data collection framework take: Please all vote Online (secure online survey – example provided) paper-based Word document Excel document	Murali explained the background for the SEF and the necessity of it in this evaluation Participants were each given a copy of the SEF with all the explanatory notes They were asked to go through the SEF individually and think of any addition/deletion, barriers in using it and the format Participants unanimously felt the current SEF is too lengthy and will take a lot of their time during consultations Early years health workers do not have access to collect patient data and hence felt that sheet 1 of the SEF is not relevant Midwives and health visitors were fine to collect patient data, but were concerned about obtaining consent individually from patients to use this data for the evaluation All the participants felt that this current format of SEF will be time consuming and practically not feasible to use it every time while they deliver healthy weight messages They suggested to develop a one-off survey, preferably online, that captures data to assess the competence and confidence and more about the resources' use and delivery Louisa agreed on this point and promised to develop the SEF as an online survey with no patient data	Participants were open and honest about the drawbacks in the SEF They revealed real time issues faced by health workers when dealing with their patients/clients They provided valuable suggestions on developing a new SEF

How best do we capture and record the patients' perspective? What to ask, when and governance requirements?		
Section 4 – developing supporting resources *(Murali and Louisa)* **We will provide an overview of the resources we hope to develop** Participants will be asked what they think about the resources to be developed (i.e. the case studies report, infographic summary and talking head). Is there anything we particularly need to address e.g. format (e versions, paper – if paper what size A4/A3), if online what sites can be accessed – thinking about the talking heads). Would it be helpful to add local branding or link to existing programmes such as change4life, length of resources, language (are translations needed) – should resources be patient or professional facing	Louisa explained about the next steps in the evaluation and on the resources that will be developed from the study to support healthy weight conversations in and around pregnancy. Participants were happy to use the learning and feedback from the workshop to develop these resources Participants were informed about the interviews during December and were made aware of their choice to accept or decline the interview request Louisa also promised to share these resources with the attendees of the workshop for their feedback, before submitting it to PHE	
Final Q&A, round up, Concluding Remarks and next steps *(Kate, Peter and Louisa)*	Kate and Peter made their conclusion remarks. Louisa and Murali thanked all the participants for their active participation Peter will be in touch with the participants to develop local delivery plans	

Learning notes from the Manchester workshop:
All the participants actively contributed towards developing this local implementation and delivery plan within their groups, keeping in mind the life courses and local challenges and barriers. They were also tasked to create this plan within the funds budgeted for this purpose.

On reviewing the must do's and could do's from each of the three groups for each of the life course, there is a massive overlap of plans. The facilitators reflected with each other on their understanding and learning from interacting with the health professionals during the activity, and again found it to be very similar. This indicates that the needs of each group (midwives, health visitors and early years) to create an implementation plan to deliver healthy weight messages in their practice is not very contrasting.

The following is consolidated learning that will form the core-framework to develop the local implementation and delivery plan:

Training for the healthcare workers:

1. More training is needed to include the entire patient-facing workforce, so that there can be a consistency across the pilot site in delivering the healthier weight messages to women before, during and after pregnancy
2. These training programmes must be tailored in a way that it helps in building confidence to use better opening statements and to use non-stigmatising statements when the sensitive topic of weight management is to be raised.
3. It must also be able to provide some training on motivational interview techniques which can improve the confidence to discuss and deliver healthy weight messages.
4. Healthcare workers are also expecting to receive a comprehensive list of the available services (where, what, how, when) that women can use to maintain a healthy weight.
5. In order to "Assist" women to maintain a healthy weight around pregnancy, the healthcare workers think they should be aware of the available resources (PHE and others), which must be one core-component of the implementation program.

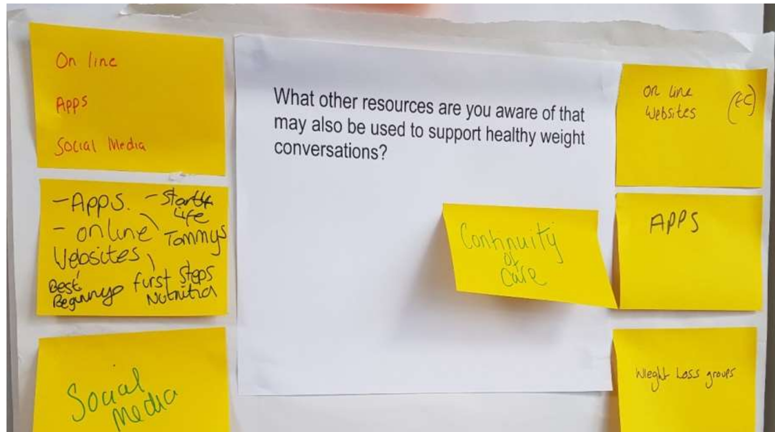
Infographics

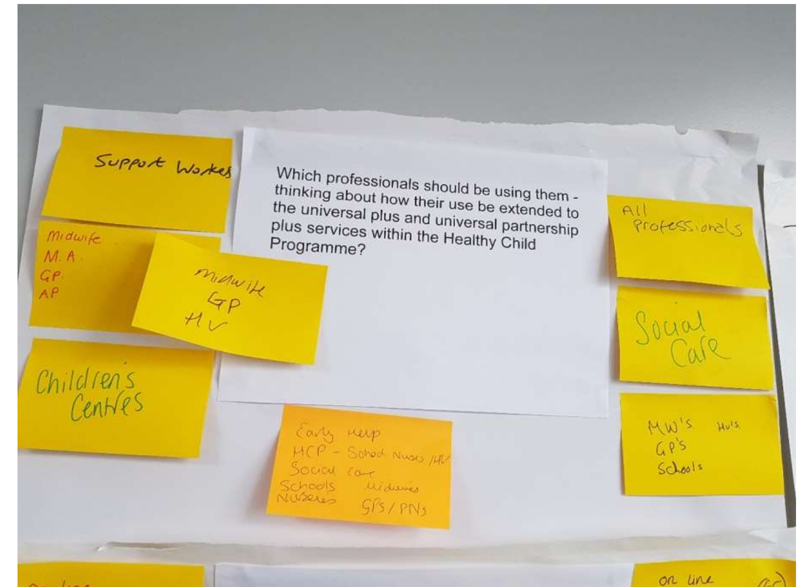
1. As part of the delivery of healthy weight messages, the currently available PHE resources must be condensed into a two-page infographic.
2. One page containing messages for pregnant women and the other for pre-conception and post-natal.
3. This infographic must be produced in different languages as the population in Manchester is so diverse, and not all patients/clients understand English.

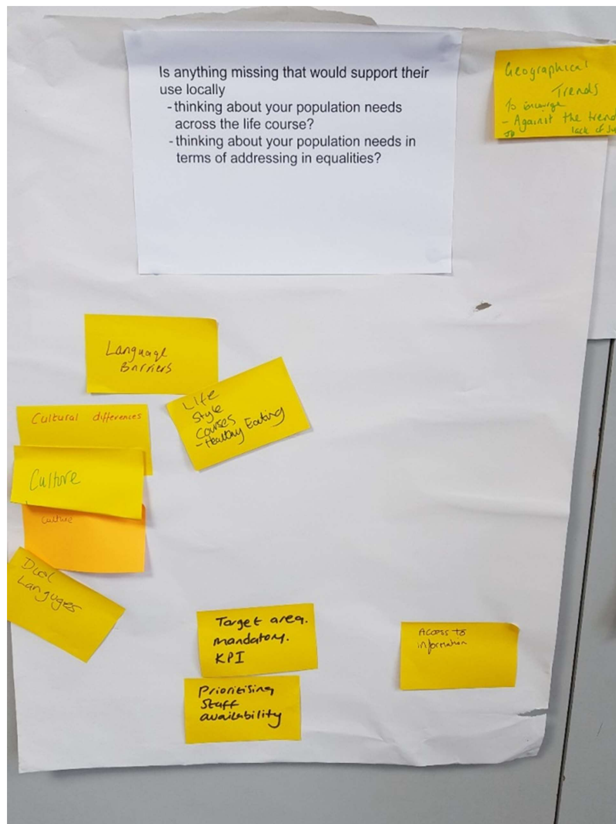
The above recommendations are, in general, the core elements that must be present in the implementation and delivery plans that will be created in local groups within the three distinctive workforces. Although the same core-elements is applied across the groups, the final delivery plan needs to be fine-tuned for individual demands, local needs and job roles.

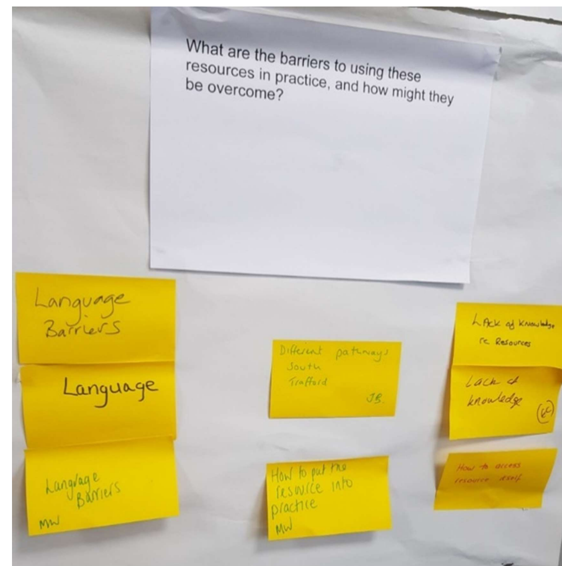
Manchester workshop visuals:

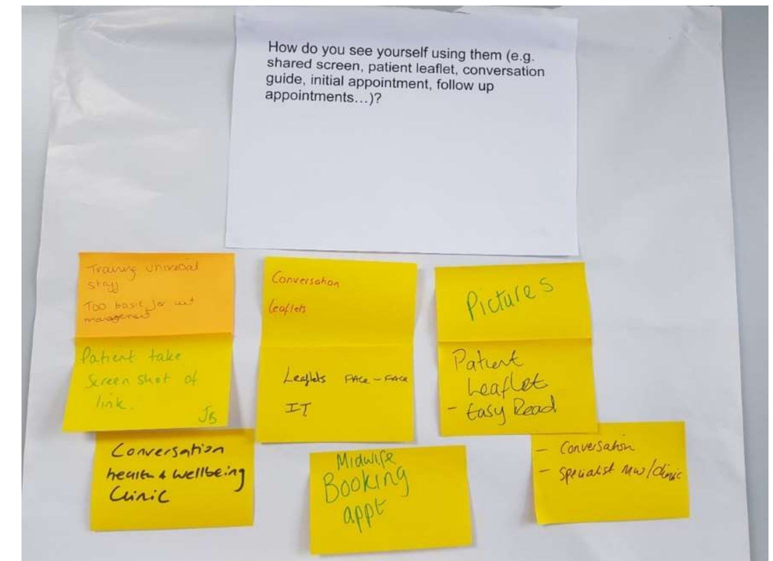
Midwives











Early Years Health Workers

What other resources are you aware of that may also be used to support healthy weight conversations?

TIER 2 / 12 weeks

TIER 3 - Slimming World! BMI

TIER 3 INTENSIVE MGMT. BMI 35

Sure Start offer -

Healthy Start Promotion -

Stay + play active sessions little super stars movers + groovers

Community Aqua reduced - natal ie swimming sessions

USING HEALTHY EATING OF CHILD HOLISTIC WHOLE HOUSEHOLD

Active life styles

What are the barriers to using these resources in practice, and how might they be overcome?

Time lack of time to address issues

lack of knowledge and experience

Confidence of Worker.

Knowledge to answer 'questions' from Mother -

Not acknowledging there is an issue - culturally

CULTURALLY RELEVANT CUES -

Dis engage ment

BARRIERS RE OUTREACH. MAINTAINING RELATIONSHIP.

Which professionals should be using them - thinking about how their use be extended to the universal plus and universal partnership plus services within the Healthy Child Programme?

EHA - Strength based Conversation.

Displays within Surestart Children's Centres

CONVERSATION STARTER - DISPLAY.

HEALTHY EATING GENERALLY WHOLE HOUSEHOLD.

Universal offer - DRIP FEED APPROACH

Conversation / leaflet / publicity

How do you see yourself using them (e.g. shared screen, patient leaflet, conversation guide, initial appointment, follow up appointments…)?

Infant feeding team. - SURE START DROP IN.

Sure Start children's centres

Early help practioners

Early years outreach Workers - BASED IN

Midwife

Health Visitors

IN WAITING AREA -

Is anything missing that would support their use locally
- thinking about your population needs across the life course?
- thinking about your population needs in terms of addressing in equalities?

ASSYLUM SEEKERS HOME OFFICE CARDS - HOW CAN ACCESS RESOURCES.

Socio Economic / Monies available to families

Cultural differences

ACCESS TO INTERVENTIONS E.G. BABY YOGA

literacy

Dual languages

ACCESS TO HOUSING / COOKING FACILITIES

use / access to translator to communicate message

LANGUAGE 80% OF FAMILY NON-ENGLISH.

CULTURAL ASSOCIATE WEIGHT PERCEPTION.

Health Visitors

Is anything missing that would support their use locally
- thinking about your population needs across the life course?
- thinking about your population needs in terms of addressing in equalities?

Literacy money choice

↓ literacy - leaflets don't work - other languages - not culturally appropriate

Short term funding not helpful

Should be part of education programme if overweight

Not enough prevention targeted approach needed

Opportunistic contacts - weaning - recipes + show case - people don't know how to cook

Parentcraft for education

Poverty - food poverty - No knowledge of what healthy eating looks like

Education language barriers

Lifestyles poverty not knowing right choices

Changing/educating communities

IT literacy can be very low

What are the barriers to using these resources in practice, and how might they be overcome?

- Confidence of staff
- Community resources
- language
- understanding of

Confidence skills staff knowledge

People feel victimised / targeted - should be an offer to all - healthy messages - offer of referral / support

Complexity of needs meaning other issues are not prioritised e.g. homelessness, DV, drug users

Resources (staff) - Time (not always enough to address)

Right training & knowledge to address issues

What other resources are you aware of that may also be used to support healthy weight conversations?

Netmums, Baby centre

Discussions with health professionals

All HCP contacts address healthy weight - could build on this

Weight watchers, Slimming world, Gym membership, Free swim sessions

Schools - teaching to children who then educate wider family

Mother + baby swim sessions, Mother + baby 'sling swing' or yoga

Links to supportive resources - texting links

Weaning groups / healthy eating

Nurses knowledge

Fitasetic

Poor resources photocopied leaflets

NHS weight loss management programme

Which professionals should be using them - thinking about how their use be extended to the universal plus and universal partnership plus services within the Healthy Child Programme?

One - one

AN contacts sitting + discussing these - APP on iPad

Collective approach

Conversations → @ universal contacts. Needs to be optional + offered to all to avoid people 'opting out'

prompt / start discussion

Appendix 3: Online survey questions

PHE - Supporting Healthy Weight Conversations

Page 1: Welcome

Dear Participant,

This online survey is developed as part of the implementation and evaluation of the resources developed by Public Health England to support health and care professionals to be consistent and deliver a core set of healthier weight messages to women before, during and after pregnancy.

Results from this survey, along with other activities as part of this project will be used to develop a suite of resources including local practice examples that can be used to share learning and support the wider system to embed approaches to enable health and care professionals to have healthier weight conversations with women before, during and after pregnancy.

The survey will take a maximum of 10 minutes of your time, and is completely anonymous.

You can exit the survey at any time and the information collected till that point will be lost. On clicking the submit button at the end of this survey, you have consented to use the information provided for the research purposes.

Page 2: Survey

1. Please state your occupation · *Required*

- ○ Health visitor
- ○ Midwife
- ○ Early years staff
- ○ Midwifery support worker
- ○ School nurse
- ○ Other

1.a. If you selected Other, please specify:

2. Please state which population group(s) you work with (tick all that apply) · *Required*

- ☐ Preconception
- ☐ Pregnancy
- ☐ Post-natal (birth to 6 mths)
- ☐ Early years 6 mths to 5 yrs

3. Did you receive any local training in delivering healthy weight messages? · *Required*

- ○ Yes (Go to 3a)
- ○ No (Go to 4)

3.a. How would you rate the training you received?

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not at all helpful	☐	☐	☐	☐	☐	Very Helpful

4. Which specific training did you attend? · *Required*

- ○ Training the Trainer session
- ○ Regular training session
- ○ Other

4.a. If you selected Other, please specify:

5. Did you receive any locally tailored healthy weight messaging resources? *Required*

- Yes (Go to 5a)
- No (Go to 6)

5.a. Which resources/training did you receive?

5.b. How would you rate the resources?

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not at all helpful	☐	☐	☐	☐	☐	Very Helpful

6. Do you use the PHE healthy weight messaging resources? *Required*

- Yes (Go to 6b)
- No - I haven't heard of them (Go to 7)
- No - I just use the locally tailored resources (Go to 7)
- Other

6.a. If you selected Other, please specify:

6.b. How would you rate the PHE resources?

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not at all helpful	☐	☐	☐	☐	☐	Very Helpful

7. Do you feel equipped to undertake healthy weight messages with: Families with low literacy or English as a second language
Optional

- Yes
- No

7.a. If no please describe in the text box what you feel you need to better support you.

8. Do you feel equipped to undertake healthy weight messages with: Families from black, asian and minority ethnic groups, who may have different cultural expectations? · *Required*

- Yes
- No

8.a. If no please describe in the text box what you feel you need to better support you.

9. Do you feel equipped to undertake healthy weight messages with: Families living in poverty, or those without adequate cooking skills and/or equipment · *Required*

- Yes
- No

9.a. If no please describe in the text box what you feel you need to better support you.

10. Have you recently (in the last month) delivered healthy weight messages to women who are either pregnant or postpartum or planning for pregnancy? · *Required*

- Yes (Go to 10a)
- No (Go to 11)

10.a. Have you had more than one conversation regarding healthy weight with the same patient/client from last October?

- Yes
- No

10.a.i. If no, please specify the reasons for not able to have healthy weight conversations recently

10.b. Overall how well do you feel the messages were received by your clients?

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Very badly	☐	☐	☐	☐	☐	Very well

10.c. Did you find that messages were more difficult to deliver in families from black, Asian and minority ethnic groups?

- ○ Yes (Go to 10d)
- ○ No (Go to 11)

10.d. Which groups did you encounter these difficulties (tick all that apply)

- ☐ Women < 30yrs
- ☐ Women > 30yrs
- ☐ Women with excess weight
- ☐ Women with obesity
- ☐ Pregnant women
- ☐ Postnatal women
- ☐ Women planning for pregnancy
- ☐ Women who are unemployed
- ☐ Women with low literacy or English as a second language
- ☐ Families with different cultural expectations
- ☐ Families from areas of highest deprivation
- ☐ Women with complex family circumstances
- ☐ Women with complex health needs
- ☐ Other

10.d.i. If you selected Other, please specify:

11. Please indicate the main barriers you have encountered in delivering healthy weight messages (tick all that apply)
Required

- ☐ Lack of time
- ☐ Worry about upsetting the patient/client Language barriers
- ☐ Cultural barriers
- ☐ Lack of training
- ☐ Lack of resource
- ☐ Difficulty with not knowing how to start a conversation on healthier weight
- ☐ Lack of knowledge about suitable referral routes
- ☐ Lack of services to facilitate healthy weight messages
- ☐ Other

Appendix 4: Semi-structured interview schedules

Semi-structured Interview Guide – North Yorkshire

Capture role of participant: e.g. public health, midwifery, school nursing, health visiting, early years, other…

1. Questions on Workshop – Attendance, Impact, feedback (e.g. did you attend the workshop, if so was it useful, if not what would you have changed, did you have any comments on general attendance e.g. were particular groups underrepresented and why might this have occurred)

2. Questions on Survey – uptake, Suitability of questions (first ask have you taken part in the survey, if not are you planning to, if you have what did you think of it – , were you able to submit everything you felt was relevant, what do you think might be the barriers to your local colleagues completing the survey e.g. other public health priorities such as corona virus, limited staff time, computer access…)

3. Questions on use of resources developed by PHE:

1. Were you aware of the PHE healthy messaging resource before this pilot study? If so how had you used them.
2. Your views on the content and relevance to your area
3. What are the barriers to implementing national resources in practice, and how might they be overcome?
4. Who do you think is should be responsible for supporting the local implementation of national resources such as the healthy weight messaging guide (e.g. PHE, LA or other)?

Questions about the printed guide and webinar video provided by North Yorkshire

5. Have you received them (or were you involved in developing them) – if so what are your thought either about them or challenges during the development process.
6. Have you used them and if so, how have you used them, and how was your implementation received by recipient patients? If you haven't used them yet, how do you see yourself (or your colleagues using them (e.g. shared screen, patient leaflet, conversation guide, initial appointment, follow up appointments…)?
7. How helpful were/will be the resources in engaging with the target group (e.g. women from low SES and BAME communities)

8. Is anything missing that would further support their use locally

    1. thinking about population needs across the life course?

    2. thinking about population needs in terms of addressing inequalities?

9. How did you see the video – if so where was it viewed: team meeting, watched individually from the link. Was the video helpful? What impact has it had, how was it used, how could it be improved?

4. Difficulties using the resources among women belonging to BME groups, women with English as second language, women with other medical conditions. How helpful do you think the PHE resources were for engaging with these particular groups?

5. Levels of competence of the health care professional in using the resources and having healthy weight conversation

1. Barriers

2. Facilitators

Did you feel well prepared to adopt these resources? If not what additional support would be helpful?

6. Confidence of the health care professional in using the resources and having healthy weight conversation

1. Barriers

2. Facilitators

7. Thoughts on further training and development of resources

8. What opportunities and levers exist in the local area that could help healthcare professionals use these resources going forward?

Is there anything else you'd like us to note, that you think would be helpful to record as part of the evaluation process?

Semi-structured Interview Guide – Manchester

Capture role of participant: e.g. public health, midwifery, school nursing, health visiting, early years, other…

1. Questions on Workshop – Attendance, Impact, feedback (e.g. did you attend the workshop, if so was it useful, if not what would you have changed)

2. Questions on Survey – uptake, Suitability of questions (first ask have you taken part in the survey, if not are you planning to, if you have what did you think of it – would you change anything, were you able to submit everything you felt was relevant)

3. Questions on use of resources developed by PHE:

   1. Were you aware of the PHE healthy messaging resource before this pilot study? If so how had you used them.
   2. Your views on the content and relevance to your area
   3. What are the barriers to implementing national resources in practice, and how might they be overcome?
   4. Who do you think is should be responsible for supporting the local implementation of national resources such as the healthy weight messaging guide (e.g. PHE, LA or other)

4. Questions on use of resources developed by PHE and Manchester:

  5. Have they have used the booklet and if so can they please share an example of how they have used them in practice? How were they received by the recipient woman and health care professional was working with? If they were involved in developing the resource what were the key challenges encountered during the development process.

   1. What are your thoughts about the local resources: what do you like about it and what don't you like about it (are there any barriers to using the local resource in practice, and how might they be overcome)?
   2. How helpful was the resources in engaging with the target group
   3. Do you think the local aspect of the resources you used was helpful and more applicable to your local populations and staff?
   4. Is anything missing, or anything you would change that you think would support their use locally
      1. thinking about your population needs across the life course?

2. thinking about your population needs in terms of addressing in equalities?

6. Difficulties using the resources among women belonging to BME groups, women with English as second language, women with other medical conditions. Was this something you had thought about before the trial?

7. Levels of competence of the health care professional needed in using the resources and having healthy weight conversation

1. Barriers
2. Facilitators

8. Confidence of the health care professional in using the resources and having healthy weight conversation

1. Barriers
2. Facilitators

9. What opportunities and levers exist in the local area that could help healthcare professionals use these resources going forward.

Is there anything else you'd like us to note, that you think would be helpful to record as part of the evaluation process?

Appendix 5: Coding framework

<u>Final Coding Framework</u>

A.1 Workshop
- A1.1 Feedback
- A1.2 Issues

A.2 Online Survey
- A2.1 Uptake
- A2.2 Usability
- A2.3 Issues

A.3 Existing PHE Resources
- A3.1 Awareness
  - Knowledge
  - Understanding
  - Experience of
- A3.2 Views on Content
- A3.3 Relevance to local area
- A3.4 Barriers to implementation
- A3.5 responsibility for local Implementation

A.4 Development of local resources
- A4.1 Co-production
- A4.2 Agreeing content
- A4.3 Tools – thoughts, gaps
- A4.4 Timescales
- A4.5 Issues
- A4.6 Feedback on Tool developed

A.5 Applicability to local areas
- A5.1 Targeting key groups

A.6 Diversity of local tool
- A6.1 BME communities
- A6.2 Deprived communities

A.7 Healthcare Professionals
- A7.1 Competence
- A7.2 Confidence
- A7.3 Training
- A7.4 Barriers

A.8 Fit with wider strategies for going forward
- A8.1 Local
- A8.2 National

A.9 Evaluation Issues

Appendix 6: Completed COREQ checklist

No. Item	**Guide questions/description**	**Reported on Page #**
Domain 1: Research team and reflexivity		
Personal Characteristics		
1. Inter viewer/facilitator	Which author/s conducted the inter view or focus group?	Pat Watson
2. Credentials	What were the researcher's credentials? E.g. PhD, MD	MSc, UCPPD, BA (Hons)
3. Occupation	What was their occupation at the time of the study?	Research Fellow
4. Gender	Was the researcher male or female?	Female
5. Experience and training	What experience or training did the researcher have?	20 years qualitative research experience
Relationship with participants		
6. Relationship established	Was a relationship established prior to study commencement?	Yes
7. Participant knowledge of the interviewer	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	Reasons for research
8. Interviewer characteristics	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	Role
Domain 2: study design		
Theoretical framework		
9. Methodological orientation and Theory	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	Framework analysis
Participant selection		
10. Sampling	How were participants selected? e.g. purposive, convenience, consecutive, snowball	Self-selecting
11. Method of approach	How were participants approached? e.g. face-to-face, telephone, mail, email	Email invitation
12. Sample size	How many participants were in the study?	4
13. Non-participation	How many people refused to participate or dropped out? Reasons?	1 – time constraints
Setting		
14. Setting of data collection	Where was the data collected? e.g. home, clinic, workplace	3 x Telephone interviews 1 x Workplace

15. Presence of non-participants	Was anyone else present besides the participants and researchers?	No
16. Description of sample	What are the important characteristics of the sample? e.g. demographic data, date	Involvement in intervention
Data collection		
17. Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	Yes
18. Repeat interviews	Were repeat interviews carried out? If yes, how many?	No
19. Audio/visual recording	Did the research use audio or visual recording to collect the data?	Yes
20. Field notes	Were field notes made during and/or after the inter view or focus group?	Yes
21. Duration	What was the duration of the interviews or focus group?	Approx 60 minutes
22. Data saturation	Was data saturation discussed?	Yes
23. Transcripts returned	Were transcripts returned to participants for comment and/or correction?	Yes
Domain 3: analysis and findings		
Data analysis		
24. Number of data coders	How many data coders coded the data?	2
25. Description of the coding tree	Did authors provide a description of the coding tree?	Yes
26. Derivation of themes	Were themes identified in advance or derived from the data?	Derived from data
27. Software	What software, if applicable, was used to manage the data?	n/a
28. Participant checking	Did participants provide feedback on the findings?	No
Reporting		
29. Quotations presented	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	yes
30. Data and findings consistent	Was there consistency between the data presented and the findings?	yes
31. Clarity of major themes	Were major themes clearly presented in the findings?	yes
32. Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	yes

Appendix 7: Additional Local Authority Case Studies

Case Study 1 - Brent public health workforce childhood obesity training

Brief summary	In 2016 Brent Council set up a Childhood Obesity steering group after engaging with stakeholders and working with partners on the 0-19 services to look at what could be done to address obesity in the borough. It was recognised that there was a lack of knowledge and skills in child weight management. An action plan was drawn up and a key focus of this was to provide professionals with training to help them to have difficult conversations with children and families about achieving and maintaining a healthy weight. Training providers were commissioned to provide the following: • 10 x 1 day childhood obesity/ 'raising the issue of weight' training was offered to anyone working with children and young people on healthy lifestyle or weight management initiatives, such as community health providers (midwives, health visitors), school and practice nurses, teachers and other professionals including fitness. • 1 x 0.5 day training was offered, more suitable to administrative staff, fitness professionals and those not directly engaging with children and young people. To support staff to help families to recognise the need for weight management support, by raising the issue of weight and signposting to local services. • 1 x 2 day training in child weight management – offered to the new providers of the 0-19 contract, who will be delivering a child weight management programme. • On line 'raising the issue of weight' training was also made available to those that requested access. The training was delivered by 'Weight Management Centre' at different venues to offer a choice for attendees. **Training objectives:** • To upskill health professionals and those working with children and young people so that they can have a conversation with families about achieving and maintaining a healthy weight. • To ensure that the 0-19 providers 'weight management team' are up skilled to deliver interventions to children. • To reduce the number of children who are overweight or obese in the borough of Brent.
Key stakeholders	Regular updates were given to the Steering Group and funders. Funding was secured from Health Education England as part of the Partnerships in Innovative Education funding. Additional training was funded by Brent Council Public Health. Training information was sent to these stakeholders: • GP Practices • 0-19 contract service providers (weight management team, school nurses, early years settings, midwives, health visitors) • Sports Centres • Oral Health providers • Schools • Council Public Health Team

<table>
<tr><td></td><td>CCG</td></tr>
<tr><td>Timescales</td><td>The training programme ran from September 2016 to October 2018.</td></tr>
<tr><td>What did you achieve and what was the key to success?</td><td>10 x 1 day ‘Weight Management’ training days – 153 attended
2 x Benefits of Physical Activity training days – 34 attended
1 x 2 day weight management prevention training – 22 attended
On line training (2-3 hours to complete) accessed by 20 people
Attendees included:
<table>
<tr><th>Professional group</th><th>Attendees</th></tr>
<tr><td>Leisure centre/personal trainers/fitness professionals</td><td>12</td></tr>
<tr><td>School Nurse</td><td>34</td></tr>
<tr><td>Public Health staff</td><td>27</td></tr>
<tr><td>GP’s and practice nurses, healthcare assistants, other</td><td>57</td></tr>
<tr><td>School teachers, assistants, liaison officers</td><td>33</td></tr>
<tr><td>Health Visitors</td><td>38</td></tr>
<tr><td>Midwife</td><td>5</td></tr>
<tr><td>Welfare officer</td><td>22</td></tr>
<tr><td>Voluntary sector</td><td>1</td></tr>
<tr><td>Totals</td><td>229</td></tr>
</table>
Feedback after the training showed that people found the courses informative, useful, and relevant. Evaluation also showed that after the training participants felt more confident to provide support to people to help them manage their weight. The networking opportunities at the training sessions were also quite useful for attendees. The training made people more aware of what support was available and where to signpost families to in the borough.</td></tr>
<tr><td>What were the key challenges?</td><td>It was difficult to get in touch with health professionals and encourage them to book on to the courses, many did not understand how important their contact with families is in helping to reduce childhood obesity.</td></tr>
<tr><td>Advice to others</td><td>Get buy in from stakeholders to ensure professionals are engaged.</td></tr>
<tr><td>Next steps</td><td>It is likely that training for health professionals will be addressed again. Staff turnover is high within the 0-19 service teams so training is always important however getting approval for releasing people is challenging. Brent council will continue to offer bite size training sessions for team meetings and if requested specifically. Additional training programmes have also been offered as part of MECC.</td></tr>
<tr><td>Useful links and contacts</td><td>Sarah Hawken, Public Health Improvement Manager
Sarah.hawken@brent.gov.uk</td></tr>
</table>

Case Study 2 - Embedding Health Improvement into Maternity Care in Cornwall

Brief summary	Healthy Cornwall has a team of Healthy Pregnancy advisors and a well-established telephone-based support service for weight management during pregnancy. Pregnant women who present with a BMI >30 kg/m^2 are referred to the team by their midwife at the antenatal booking appointment. Despite this telephone-based service, maternal obesity rates are increasing; in Cornwall, approximately 29% of pregnant women are obese at their booking appointment. While useful for servicing the large rural demographic of Cornwall, telephone-based support services are limited. It is often challenging to engage women and establish rapport without meaningful face-to-face contact. Pregnant women may not engage due to work or family commitments or may not reply due to lack of credit on their mobile phone. It is also difficult to explore resistance and reasons for declining support. The need for face-to-face support for pregnant women and their families in Cornwall led to the development of a pioneering 'Healthy Pregnancy at Scanning' partnership initiative between Healthy Cornwall and the local NHS maternity services. Our systems-wide approach aims to provide universal health improvement support, including addressing the wider socio-economic causes of poor health and wellbeing, at the 12-week dating scan.
Key stakeholders	The initiative has been successful due to the collaborative partnership approach between Healthy Cornwall and the LMS and our shared commitment to maternal and child health. Community midwifes have an essential role in the initiative as the primary referrers in to the Healthy Pregnancy service. We also work closely with hospital-based midwifery staff, including sonographers and phlebotomists, to ensure every woman is signposted to our advisors after their scan. With increasing demand on clinical services, midwives may not have the time to discuss health improvement topics with women. Our advisors have the time and specialist training to have these conversations with women and identify barriers to adopting a healthier diet. Our approach includes collaborations with the local fire and rescue service; Family Hubs; social care partners; local leisure providers and voluntarily support groups. We are also very mindful of the importance of service user engagement and are working with the local Maternity Voices Partnership to put the pregnant family's voice at the centre of all we do.
Timescales	The initiative launched in June 2018 with Healthy Pregnancy advisors on duty Monday to Thursday for morning scan appointments. Due to the success of the initiative, from January 2020 we moved to an all-day service to ensure every pregnant woman has access to health improvement advice. From January 2020, we also introduced our new Healthy Pregnancy digital resource packs. These interactive packs are now provided to all pregnant women and include current and topical health improvement advice from national organisations e.g. Start4Life, Tommy's and Healthy Start, as well as local information e.g. DadPad, antenatal classes and local exercise opportunities. The initiative is ongoing and we are now working hard to ensure that residents of Cornwall who scan out of county access a similar service provision.
What did you achieve and	Between January and December 2019, 1,605 pregnant women engaged with this initiative. In addition to this, we also supported 1,324 partners and family members,

what was the key to success?	empowering and motivating whole families to lead healthier lives. Furthermore, we identified 618 families eligible for Healthy Start vouchers who were not yet enrolled on the scheme, providing a nutritional safety net to these low-income families. On average, 85-90% of women, who are appropriate for our service (i.e. have a viable pregnancy) visit us for information and support. Our long-term ambition is to see a reduction in maternal obesity rates in Cornwall. We believe that our inclusion in such a critical routine appointment really embeds health improvement into antenatal care. Our physical presence at the scan provides us access to the large majority of women and importantly a unique opportunity to engage with partners who do not always attend community midwife appointments. A key element of our partnership working is our provision of health promotion training to midwives at their local team meetings and annually at their 'maternity update days'. This ensures all midwives have the skills and confidence to promote and initiate healthy conversations and support diet and lifestyle change. **User Feedback:** "Great additional part of the service. It makes you feel like you are really cared for" "We never had this service with our last two pregnancies, but it is fantastic and we can see how it would really benefit all mums." "Such practical advice and nice helpful resources" "It's a great idea – there is so much on the internet good to know what to trust"
What were the key challenges?	One of the key challenges we face is our need for greater investment in robust data (qualitative and quantitative) collection in partnership with midwifery and health visiting. We are now in the process of exploring how we can demonstrate outcomes including, preventing excess gestational weight gain, improved knowledge and confidence to make change and engagement with formal weight management post-birth.
Advice to others	Collaboration with the LMS and open-mindedness to what contributes to a "healthy pregnancy" including wider determinants of health and health inequalities.
Next steps	We aim to continue with this work to embed health improvement throughout the life course. Following engagement with the Healthy Pregnancy service, all women are invited to attend our Ready, Steady, Eat workshop, a session about starting babies on solid foods. This is a key opportunity for obesity prevention. Looking to expand this offer to include additional information on postnatal weight management, to support women to achieve a healthier weight for future pregnancies.
Useful links and contacts	Lucy Walsh (Heathy Pregnancy and Early Years Team Lead), Fay Colloff (Health Improvement Practitioner) Lucy.Walsh@cornwall.gov.uk Fay.Colloff@cornwall.gov.uk

Case Study 3 - Health in Pregnancy Service (HIPS) Bath and North East Somerset: support to Stop Smoking and manage weight in pregnancy

Brief summary	This service is commissioned by the Bath and North-East Somerset Council (Public Health team). Women are automatically referred to the service by our Business Intelligence Unit computer system when they have a BMI of 30 or higher or (or BMI >27.5 for South Asian women). The service also provides smoking cessation support and a proportion of clients receive both services.

	The HIPS team provides one to one support for pregnant women to manage their weight using a psychosocial model, motivational interviewing skills and the Five Ways to Wellbeing model. Nutritional information is based on standard NHS weight maintenance advice: Eat Well Plate; portion sizes; reading nutritional labels, Sugar Smart. The Chief Medical Officer's exercise in pregnancy advice is promoted as are local exercise / movement classes that are available. Self-referral to local psychological support services is encouraged where appropriate. Post birth, onward referral to healthy lifestyle services is also encouraged. The team consists of a Band 6 midwife, two Band 4 Health in Pregnancy Advisors with Band 7 management oversite. The team offers home visits or women can be seen at the birthing centre or GP practice.
Key stakeholders	The project concept and service specification was developed by the Healthy Weight lead for the local Public Health team who was keen to have a service specifically for pregnant women embedded within maternity services. Key stakeholders include; Public Health Commissioners, Public Health dietitian and midwifery teams.
Timescales	The service started in 2013. Plans are to continue the service in its current model for the foreseeable future.

What did you achieve and what was the key to success?	**BMI 30+ group:**
	• 100% of women referred to the service are contacted and offered support to manage their weight in pregnancy.
	• 64% of women take up the offer. Reasons for why some women decline to participate include that they do not feel that they have a problem with their BMI, for some it is not the right time and for others who have a long history of watching what they eat they are fed up with it all and want some time off thinking about this during their pregnancy.
	  • Outcomes: 68.4% were below or at Weight Management Guidelines at 36 weeks of pregnancy.
	User feedback is very positive. Women value having an ongoing, supportive relationship with their health in pregnancy advisor or midwife.
	Key to success:
	  • Being embedded in maternity services
	  • A highly trained team (both Band 4's are ex midwives). The team completes regular professional development / training etc. although this can be hard to find.
	  • Being flexible - some women need a number of 1:1 session's (average 6), other women need only one session with brief follow up to catch up on weight and a quick review of SMART goals. The first appointment with women is usually one to one and a half hours responsive to the woman's needs and follow-up appointments will be shorter than this but the team uses an individualised approach. Appointments can be made Monday to Friday and early evening appointments are available to book.
	  • If the woman's partner is very motivated the team can deliver these sessions as a family approach.
	Learning on the way: In the early years of the project we worked hard to provide a service for women with BMI 28- 29.9. We tried group sessions in varied locations

	and at varied times, some sessions included exercise taster sessions. Uptake was consistently low.
What were the key challenges?	Data collection has been a challenge as it did not lie within the clinical skill set of the team. The data we collect has evolved as our commissioners ask for different outcome data. Reporting over the 9 months of pregnancy is also tricky. It has taken a while for midwives to have positive conversations at booking about women's automatic referral into the programme. When this conversation is positive we find recruitment much easier. We still have recruitment conversations with women (as they are automatically referred via the computer system into the programme) where the service has not been mentioned or women who are told "your BMI is not that high you are fine you don't need it".
Advice to others	Don't start from scratch – learn from others. Being embedded within the maternity services but also standalone gives us maximum autonomy which is vital as being a flexible service is key to our success.
Next steps	The project is ongoing, performance is reported quarterly. We would like to compare our outcomes with an area where women do not receive this support but no funding is currently available for this.
Useful links and contacts	Sally Tedstone, Infant Feeding Specialist Royal United Hospital Bath NHS Trust Sally.tedstone@nhs.net

Case Study 4 - Healthy Lifestyle clinics at North Tees and Hartlepool Hospitals NHS Foundation Trust

Brief summary	• Shortly after the new antenatal specialist midwife role was created Healthy Lifestyle clinics at North Tees and Hartlepool Hospitals were established. The aim of these clinics is to improve care provision for women in accordance with Better Births and Saving Babies' Lives. • The community midwife weighs all women at their first appointment (ideally before 10 weeks of pregnancy), they then complete a referral form for the Healthy Lifestyle clinic if the woman's BMI is ≥35. The specialist midwives who deliver the Healthy Lifestyle clinics triage these referrals to assess suitability, if the woman has other co-morbidities they may need to be reviewed by a consultant.

	• Women who participate in the Healthy Lifestyle clinics usually have 5 appointments; 14-16 weeks gestation, 28 weeks, 31 weeks, 34 weeks and 37 weeks as a minimum. The appointments are at the same time as the woman has her ultrasound scan. The first appointment is 30 minutes and subsequent appointments are 20 minutes long. • Healthy Lifestyle clinic appointments include plotting the baby's weight from the ultrasound scan on a chart, discussing the scan with the woman, answering her questions as well as an antenatal check (blood pressure, urine and sometimes blood test). • Discussion around healthy weight is approximately 5 minutes and in this time the specialist midwives encourage women to make healthier choices. Women are not advised to diet instead discussion focuses on increasing fruit and vegetable intake, portion sizes and dispelling myths such as pregnant women need to eat for two. The midwives also explain that simple changes such as walking to the shop instead of using the car, taking the stairs instead of using the lift at work, swimming and walking the dog an extra block can make a difference to their health. Often the conversation with women leads to talking about their confidence, self-esteem and body image.
Key stakeholders	Obstetrics, in particularly the antenatal specialist midwives developing guidelines and specific pathways for women with raised BMI in pregnancy. Also ongoing involvement with the dietitians and 0-19 service at Stockton.
Timescales	The project was started soon after the role of antenatal specialist midwife was created in January 2017 and is an ongoing project.
What did you achieve and what was the key to success?	The aim was to use the 'Plan, Do, Study, Act' quality improvement methodology to evaluate change. The specialist midwives intend to audit the progress, looking at weight gain in pregnancy before and after these Healthy Lifestyle clinics were established. The programme improved continuity of care for these women and more effective weight management in pregnancy. Involving other multi-disciplinary teams to do this previously proved challenging. Building rapport with the women and taking a non-judgemental approach is important. Women who have participated in the clinics have said that they feel comfortable speaking to the specialist midwives about the risks in pregnancy associated with a raised BMI. **Keys to success:** • The Healthy Lifestyles clinic uses individual pathways of care and provides women with leaflets on weight management. The team use information and resources from the Royal College of Obstetricians and Gynaecologists, Tommy's and Public Health England. • Providing consistent messages to women is important. • The specialist midwives delivering the Healthy Lifestyle clinics attended an obesity study day in Edinburgh at the Royal infirmary that discussed strategies for counselling women around weight gain, healthy eating and exercise in pregnancy. The study day also included examples of having challenging conversations with women who were defensive or not wishing to speak about their weight that were helpful for practice. • Opportunities and local levers that have helped include:

	○ Having the specialist midwives who are responsible for delivering the Healthy Lifestyle clinics leading and developing this work. ○ Engaging with the 0-19 service. ○ Attending study days.
What were the key challenges?	• Engaging with multi-disciplinary teams to improve and develop the services has proven difficult at times. • Availability of ultrasound scans can also mean that sometimes it is challenging to book Healthy Lifestyle clinic appointments for women at the same time, this is important for continuity of care.
Advice to others	Start small and develop as you go. These clinics are constantly developing and are a work in progress providing healthy lifestyle support and care for women during pregnancy.
Next steps	• Continuing to improve the service alongside other multi-disciplinary teams and audit progress. • Consider regular optional (opt-in) weighing of patients to help promote maintaining healthy weight gain in pregnancy.
Useful links and contacts	Danielle Stephens, Specialist Midwife in Antenatal Care Danielle.stephens@nth.nhs.uk Terri Oliver, Specialist Midwife in Antenatal Care terri.oliver@nth.nhs.uk

Case Study 5 - Healthy Me, Baby & Beyond in Gloucestershire

Brief summary	'Healthy Me, Baby & Beyond' 1001 Days Programme is a lifestyle support service for women and their families during pregnancy and up to 2 years postnatally. The programme has been funded by Gloucestershire County Council (GCC) Public Health team. The project is led by a Specialist Midwife and delivered in collaboration with the Health Coaches from the Integrated Healthy Lifestyles Service. The Healthy Lifestyles Service is commissioned by GCC to work with Gloucestershire Hospitals NHS Foundation Trust to reduce the number of pregnant women who smoke, and to encourage pregnant women and their families to improve their health. The programme offers 1:1 specialist health coaching and a wraparound support service on becoming smoke free, healthy eating and weight management, getting more active and feeling your best. Programme development was informed by the findings from a series of behavioural insight focus group interviews conducted by social researchers. Since January 2020 the programme has been offered to all pregnant women who smoke and/or pregnant women with a BMI between 30 and 40.

Key stakeholders	• The project team consists of a specialist healthy lifestyles midwife, health coaches and their managers, behavioural insights team, graphic designers and digital support staff and Health Visitors. • The project has been supported with some funding from Gloucestershire Better Births and the Local Maternity System as it feeds into the Prevention work stream. • The CCG have provided project support for our work on building a Healthy Lifestyles Prevention Pod in the main Maternity Unit to allow easier service access and promote referrals. • Coaching clinics have been set up in conjunction with Consultant led antenatal clinics to provide an integrated service for women who are experiencing higher complexity pregnancies. • The project team have liaised closely with the Maternity Voices Partnership throughout the project development and formed links with local Children's Centres and community based services supporting health and wellbeing.
Timescales	• Timescales were governed by the 18 month period of the secondment of a specialist midwife to manage the project. • Project planning began in February 2019, the initial 3 month pilot launched in June and ran until September 2019. • Evaluation was carried out following this and plans to roll out the service county wide from January 2020 began alongside development of the post-natal programme.
What did you achieve and what was the key to success?	Working with commissioners, midwives and key stakeholders we: • Conducted a review of existing best practice and evidence base • Developed a pathway and referral mechanism for the programme • Agreed outcome measures and evaluation framework • Designed resources and collateral to support programme delivery • Recruited and trained specialist coaches The programme was piloted in a central city area targeting women who smoke and/or have a BMI of between 30 and 40. Women were referred by midwives and consultant-led antenatal clinics to the health coaches. These coaches provided behavioural support and worked through the 1001 day programme resources with the women. Postnatally the coaches continue to meet with the women, and their partners/families as required. The intention is that any subsequent pregnancies will continue to be smoke-free and the women/families maintain their healthier lifestyle. This postnatal aspect of the programme is currently in development, with the support of Midwives, Health Visitors, and pregnant women from the Maternity Voices Partnership Gloucestershire group. Initial evaluation shows that user feedback was extremely positive and that the women found the healthy eating information and goal setting most useful in the booklet they were provided with.
What were the key challenges?	We will be continually using feedback from women and stakeholders to inform the programme delivery and content throughout 2020. However, some learnings from the development and initial pilot stage include: • Dedicated capacity and resource is needed to develop a programme from scratch and these need to be secured first. • It is essential to involve stakeholders as well as those that will receive the service in the development. Keep them informed. • Get the support of the local maternity system – they are invaluable

	• It takes time – don't rush into delivery until you are satisfied that everything is in place • Make sure that the pathway is clear and communicated well so that referrals are appropriate and expectations are realistic • Don't be afraid to alter criteria, pathways etc. based on feedback. This is a developmental piece of work and we are still learning. We are developing the postnatal pathway in conjunction with those currently in the programme and key stakeholders. The programme pathway will vary depending on the need of those receiving it e.g. level of support, type of support (tel. face to face, text) and 'what is important to them'.
Advice to others	• Engage with all stakeholders at all stages of project development • Encourage feedback from project team, stakeholders and service users and respond • Ensure project is adequately funded and time resourced
Next steps	The project is ongoing and a full evaluation will be published when the initial pilot cohort have completed their 1001 days. In response to user feedback we are developing a digital resource tool in the form of a companion app that sits alongside the main healthy lifestyles platform 'Best You' to allow women to access healthy pregnancy information, updates, notifications and track their journey using a tablet or phone.
Useful links and contacts	Michelle Sterry, Specialist Midwife Healthy Lifestyles Gloucestershire michelle.sterry@nhs.net

Case Study 6 - Healthy Mums, Healthy Tums clinic for women with obesity in pregnancy at the Royal Devon and Exeter Hospitals

Brief summary	Pregnant women of all ages booked at the Royal Devon & Exeter Hospital with a BMI of ≥35 were referred in their booking appointment to the Healthy Mums, Healthy Tums group lead by 1 WTE midwife at the Royal Devon and Exeter NHS Foundation Trust in partnership with Active Devon. Devon has one of the highest rates of maternal obesity in England. The public health midwife delivers information 1:1 to these women on the importance of healthy eating and participating in physical activity during pregnancy. The women are also encouraged to attend free exercise classes of yoga and or low impact movement (2 classes are offered per week). The midwife also attends these exercise classes.
Key stakeholders	• This programme is a partnership between the Royal Devon and Exeter NHS Foundation Trust, Active Devon and the Devon Local Maternity System • Public Health Midwife • Public health consultant Devon County Council • An initial task and finish group included all key stakeholders working together to highlight the importance of weight management and physical activity in pregnancy
Timescales	The first cohort of women took part in this programme in 2018. This programme has evolved since then and is currently being scoped with the intention to be rolled-out in 4 areas of Devon with plans to continue the service in conjunction with the better

	birth's agenda. The Royal Devon & Exeter NHS Foundation Trust will refer all women with a BMI of ≥30, and it is envisaged this will continue into the postnatal period.
What did you achieve and what was the key to success?	Feedback from the first cohort of women who participated in this programme has been positive, they enjoyed the peer support from one another and continued to see each other after they gave birth. In addition to this, while taking part in the programme the public health midwife lead noticed a change in the women's attitudes to participating in physical activity. The evaluation was carried out by the lead midwife to underpin PhD development and scope if there was a need for a service within maternity services. There is a conflict of value for money with key stakeholders and therefore due to timescales and measurements difficult to agree on this. **Keys to success:** • The midwife attended the exercise classes and this provided the women with an opportunity to ask her any questions they had before and after the classes. • Having the midwife explain why it is important for women to achieve a healthy weight gain in pregnancy in terms of reducing the risk of developing gestational diabetes, reducing the risk of instrumental delivery etc. helped with the participant's understanding and increased awareness. • The midwife who initiated the project had completed a master's qualification in public health and had the relevant training on MECC and behaviour change techniques. **Limitations** • Midwives are not trained in behaviour change or undergo any MECC training. The current Public Health midwives employed have no academic training or awareness on public health education and health promotion. • Midwifery buy in was not a priority for the workforce. • No additional resources or monies was provided by maternity services. • All materials used were sourced through PHE or Tommy's charity and in written format provided by the PH Midwife. **Lessons learnt** • Midwives working in public health require relevant training around MECC and behaviour change. • Having a dietitian as part of the working group would have been beneficial. • Additional time for midwives to be provided with the evidence base and benefits of healthy eating and remaining physically active was essential for the referral of women. • The project ran on the goodwill and commitment of the PH midwife and the lead for Active Devon.
What were the key challenges?	• Finding a trained exercise teacher to deliver the yoga and low impact movement classes who was insured to work with pregnant women was challenging. • A large campaign around the importance of healthy eating and physical activity would have been beneficial
Advice to others	• Ensuring maternity departments are aware of the benefits and theoretical evidence of healthy eating and physical activity in pregnancy is important. • Ensure that all stakeholders are measuring the same outcomes from the onset.

Next steps	The PH Midwife who initiated the programme is seconded into post as the lead midwife for the local transformation plan. Her links remain with Active Devon and the Royal Devon & Exeter NHS Foundation Trust, from a strategical perspective she intends to roll out the programme across all four providers in Devon. Royal Devon & Exeter will continue with the programme and are transforming and developing in conjunction with Active Devon, a financial bid will be raised through the work of the prevention workstream and will align with Devon LMS plans and the lead midwife's Phd work, it is envisaged through this work a QI project could be developed for spread across the system.
Useful links and contacts	Melanie Winterburn-Brannick, Lead Midwife Devon LMS m.winterburn-brannick@nhs.net

Case Study 7 - Healthy Weight before, during and post pregnancy in Leicester, Leicestershire and Rutland

<table>
<tr><td>Brief summary</td><td>A Maternal Obesity Health Needs Assessment across Leicester, Leicestershire and Rutland (LLR) was undertaken, and recommendations were made including:
The Development of a Maternal Healthy Weight Action Plan.
The development of a coordinated public awareness campaign based on behaviour change theory and models.
The development of a Making Every Contact Count training module on healthy weight before, during and post pregnancy for Midwives, 0-19 Healthy Child Programme staff, GPs.
The development of a common evaluation framework to evaluate maternal obesity interventions to help inform the evidence
Work to date has included:
The development of a Healthy Weight in Pregnancy/ Maternal Obesity Action Plan. Maternal Obesity is identified as priority in the Leicestershire Children and Family Partnership Plan and the Leicester, Leicestershire and Rutland Health Babies, Pregnancy and Birth Strategy (Infant Mortality) and Better Births.
An E-Learning and Face to Face Making Every Contact Count module for healthy weight before, during and post pregnancy is being developed for health care staff and early help staff.
A leaflet on healthy weight before, during and post pregnancy is being developed as part of the Leicestershire and Rutland Sport Make your Move Leaflets.
A page on healthy weight in pregnancy is being developed for the University Hospitals of Leicestershire Maternity Services website.
This has become a priority across LLR because of the links between Maternal Obesity and infant mortality and while the risk of obesity in general is increasingly well understood by healthcare professionals, commissioners and the public, the risks of maternal obesity remain poorly recognised. Public awareness of maternal obesity is particularly severely limited.
Local insight has revealed that health care professionals are not raising this modifiable risk factor with pregnant women as they seem to lack the confidence and competence to raise it.</td></tr>
<tr><td>Key stakeholders</td><td>Maternal Obesity/healthy weight in pregnancy is one of the priorities of the Leicestershire Children and Family Partnership Plan.
A task and finish group has been set up to oversee this work it includes, midwives, health visitors, dietitian, public health manager, health improvement officer, communications officer, physical activity officer, a district/ borough council health improvement officer.</td></tr>
<tr><td>Timescales</td><td>Work started in March 2019 and is ongoing.</td></tr>
<tr><td>What did you achieve and what was the</td><td>To progress this work £20k of LMS funding has been secured through a successful bid. This is to pay for the development and delivery of the training modules and development of resources (leaflet and webpage).</td></tr>
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key to success?	**Outcomes we hope to achieve:**
	• Increased awareness among the public about the importance of healthy weight before/ during/ post pregnancy
	• The addition of support to women before/ during/ post pregnancy as part of the Leicestershire weight management service
	• Training for health professionals so they feel more confident and competent in raising the issue of healthy weight before, during and post pregnancy and are able to offer brief advice and signpost to sources of support and information. This will be done by:
	    o Delivering 3 face-to-face Healthy Weight in Pregnancy / MECC Plus training workshop sessions on healthy weight before / during / post pregnancy to University Hospitals of Leicester Midwives and Community Midwives. Some of the topics that will be covered include how to have brief conversations about behaviour change, risks of a raised BMI in pregnancy, pregnancy supplements / Healthy Start / eating well / exercise and local services and signposting.
	    o Delivery of a train-the-trainer session to train-up volunteer professionals to continue the delivery of the training
	    o Development of an e-learning training module for health and care professionals, children and family wellbeing practitioners, Children's Centre staff.
	User feedback has been collated during the Health Needs Assessment and through insight work regarding infant mortality.
	Keys to success:
	• A request for quotation has successfully secured a provider to develop the E-learning and face to face training module
	• Partnership working through the task and finish group
	• This work is a priority for 3 Boards – Children and Family Partnership Board, LMNS Board, and Healthy Babies in Pregnancy and Birth (Infant Mortality) Strategy Group
	• A literature review of the evidence was undertaken as part of the Health Needs Assessment – this helped to inform what was required
	• LMS Board funding secured

What were the key challenges?	• Making the case for doing work on maternal obesity • Making the link between maternal obesity and increased risk of infant mortality and risk to women • Lack of funding – competing priorities regarding funding decisions
Advice to others	Raise this issue through LMS Boards/ Boards addressing Infant Mortality (as well as healthy weight Strategy Boards) and through Children's Trust Boards (or equivalent).
Next steps	This Project is ongoing, and evaluation is part of the Action Plan.
Useful links and contacts	Jane Roberts, Public Health Strategic Commissioner Jane.Roberts@leics.gov.uk Clare Mills Clare.Mills@leicester.gov.uk

Case Study 8 - MoreLife's Obstetric Weight Management Offer in the Bedford Borough, Milton Keynes and Central Bedfordshire

Brief summary	MoreLife's weight management programme for obstetrics is currently under development, we hope to launch in April 2020. MoreLife are commissioned by Bedford Borough, Milton Keynes and Central Bedfordshire to have a programme for maternity. This will be an antenatal and postnatal programme. MoreLife proposed the method of development and the research around the project as there are no real examples of successful programmes for Obstetric Weight Management (OWM) in these areas. Over the past few months focus groups with mothers, pregnant women, midwives and health visitors have been used to gain feedback from those living and working in the area to help drive the development of this programme. Furthering this, a PhD study is being conducted at Leeds Beckett University (Year 1) - 'A focused ethnographic study exploring OWM approaches and provision'. The study will guide ongoing developments of the intervention and approaches to delivery and engagement strategies over the next few years. MoreLife plans to accept referrals for this programme from midwives, primary care, health visitors, other health professionals and self-referrals from women. The antenatal programme is likely to be over the phone supported by an e-pack from MoreLife including videos of our local midwives giving advice. This will follow on to a postnatal programme where women will get additional support in our adult programmes.
Key stakeholders	Internally, MoreLife's clinical and research teams have been fundamental in the developments of the up-coming programme. CEO, Professor Paul Gately and Clinical Lead, Dr Sophie Edmonds have closely supported PhD researcher and Weight Management Lead, Grace Shiplee throughout the project along with research supervisors at Leeds Beckett University. The working group helps to ensure the developed programmes are evidence based and of a high quality. Externally, we have also found it essential to build key relationships with the midwifery and dietetics departments at Luton and Dunstable Hospital, Milton Keynes University Hospital and Bedford Hospital Trust. This is in addition to Family Centres, Physical Activity Services and 0-19 services across all three local authorities. These relationships are helping enable us to negotiate effective referral pathways with health professionals and gain valuable feedback to influence the design and delivery of the up-coming programmes. We hope to initiate on-going engagement with these external stakeholders and service users via steering groups in association with the PhD study and MoreLife practice.
Timescales	Planning and preparations for programme development began in September 2019 with the programme launch date established for April 2020. The programmes will continue to run in the targeted areas throughout the term of the MoreLife service contract (2019-2022 with possible extension).
What did you achieve and what was the	Unfortunately, we are still analysing the data from focus groups, however, the ongoing data collected from this will also be a part of the described PhD study and this means that findings/plans will be shared in future conferences etc.

key to success?	A key to the success of this programme will be our team, MoreLife have a team of weight management practitioners. The MoreLife practice approach is a biopsychosocial intervention and psychologically informed model, we have a central clinical team to support staff training and intervention development which does include health psychologists and dietitians, although MoreLife do not prescribe food/exercise plans to any clients. Specific to the up-coming maternity programme we are also providing our weight management practitioners with additional training that will be delivered by midwives.
What were the key challenges?	It has been tricky to get appointments with departments and fit around health professionals' busy schedules, however, consistent engagement seems to be key and the programme does seem to be welcomed by all. The focus groups seem to have had the benefit of empowering stakeholders to have their say in the programmes, which has made some seem more invested in it.
Advice to others	Promoting consistency of care and working together with other services seems to be essential.
Next steps	We will be launching the programme and measuring its achievement based on engagement, user feedback and postnatal weight loss.
Useful links and contacts	Grace Shiplee, PhD researcher and Weight Management Lead grace.shiplee@more-life.co.uk

Case Study 9 - Mums' Zone: A combined intervention of yoga and social support for new mums in Wokingham and Slough

Brief summary	Mums' Zone is a holistic health and wellbeing intervention for all new mums who have passed their 6-week check up. Health visitors, GPs, social workers and family support workers can refer women to the programme. It aims to improve mental and physical health by offering a rolling programme (2 hours per week) consisting of low-moderate intensity physical activity (yoga) and workshops/information on local services and support. It is an opportunity for mums to get together in a comfortable setting to aid social networking and peer support. A key focus of the intervention is to improve mental health and early identification of postnatal depression. Mums are encouraged to attend until their children start to walk (usually around the 9-12 month point). Mums' zone Ambassadors are a friendly, welcoming face who facilitate the sessions, they are volunteers who have an affiliation with the intervention, for example, a mum or someone who has experience of suffering with their mental health. They support with organising refreshments, completing paperwork etc. Mums' Zone ambassadors have had training on motivational interviewing, behaviour change, safeguarding etc. A yoga teacher is employed to deliver the yoga sessions. Partner organisations, local groups /services deliver the workshops in their area of expertise. Topics have included; paediatric first aid, mindfulness drawing, happiness talks, baby massage, immunisations, communication. Mums' Zone was launched in September 2019 in two areas across Berkshire: Wokingham & Slough. Mums' Zone is delivered from Children's Centres and Leisure Centres.
Key stakeholders	• Lead organisations - Places Leisure (Wokingham) & Get Berkshire Active (Slough) • Project Steering Group, comprising of local experts to guide the design and delivery of the intervention, including representatives from; perinatal mental health, health visiting, public health, leisure, active partnership, children's centres, library services, children & young people, voluntary and community services • Research and evaluation partner - Canterbury Christ Church University - to evaluate the impact of a combined intervention of physical activity (yoga) and social support on new mums' physical and mental wellbeing.
Timescales	The concept of Mums' Zone was first discussed in January 2019. Following consultation with local mums / organisations, a bid was submitted and funding receiving in April 2019. Following 6 months of planning, Mums' Zone launched in September 2019 and has been ongoing since.
What did you achieve and what was the key to success?	**Evaluation** We are awaiting evaluation to evidence the impact of the project between Sept 19-Mar 20. The evaluation requires participants complete a questionnaire at three time points (initial, 3 months and 6 months). The questionnaire is made up of Sport England's Demographic and Strategic Outcome measures, an adapted version of the International Physical Activity Questionnaire (IPAQ) suitable to motherhood, and the Edinburgh Postnatal Depression Scale (EPDS). Initial findings and user feedback suggest the project has been beneficial for participants wellbeing and has additionally received positive feedback from partners and stakeholders. **Success factors** The combination of physical activity and information (workshops) has been particularly successful. Additionally, mums having the opportunity to bring babies to the group allows them to exercise without having to worry about childcare, which was identified as a key barrier to postnatal exercise during the initial consultation. The public health

	workforce has been supported to have conversation surrounding postnatal physical activity using the new CMO physical activity guidelines for women after childbirth (birth to 12 months; 2019) as a reference.
What were the key challenges?	The key challenges were: • We have held 3 of the 4 sessions at local Children's Centres which in some cases has caused challenges due to the negative connotations of the space (i.e. visitation, social services etc.). Moving forward we would look at more neutral locations, such as libraries, leisure centres etc. • The connotations of "yoga" and its connection to Buddhism in a diverse area may conflict with other beliefs. Sessions can be renamed i.e. "stretch & tone", to overcome this • Mums can often be overwhelmed with lots of information at the 6-week check so engaging with mums from 6 weeks has been difficult. Most participants engaged with the group from 18 weeks which limits the amount of time they can attend (as group is specifically for non-walkers)
Advice to others	• Stakeholder engagement is key. It allows you to build a "bank" of service to deliver relevant workshops • Partner with organisations who have a strong affiliation to the project / target group • Consider local demographic as this may impact how the intervention is delivered / perceived • Allow budget / scope / time to include R&E partner – adequate time for research process (ethics, data collection / analysis / reporting)
Next steps	The project is currently ongoing. An evaluation is due to begin in April 2020 from the data collected between Sept 19-Mar 20. The evaluation will be conducted by Dr Marlize De Vivo and Dr Hayley Mills from Canterbury Christ Church University's Perinatal Physical Activity Research Group (PPARG).
Useful links and contacts	Cathy Carr, Healthy Communities Manager, Get Berkshire Active – cathy.carr@getberkshireactive.org Dr. Marlize DeVivo, Senior Research Fellow, Canterbury Christ Church University - marlize.devivo@canterbury.ac.uk Dr. Haley Mills, Programme Director, Canterbury Christ Church University - hayley.mills@canterbury.ac.uk **Websites:** https://getberkshireactive.org/mums-zone https://www.canterbury.ac.uk/social-and-applied-sciences/human-and-life-sciences/sport-and-exercise-sciences/research/perinatal-physical-activity-research-group/Perinatal-Physical-Activity-Research-Group.aspx