

**Gaining insight into food, diet practices and
nutrition during the early year's lifespan:
Pre-conception and pregnancy**

Final Report

A qualitative study commissioned by The Food Foundation and
undertaken by the University of Hertfordshire

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Executive Summary

“There are a lot of people that are excluded from having a healthy diet. And there can be a disconnect between the advice that we’re giving and the information that is available to pregnant women and families and that is the reality, the reality of their lives.” [P1]

The health of the Nation - a strategy for health in England (Department of Health [DH], 1992) provided a structure for health policy between 1992 and 1997 to improve the health of the population; this white paper was the first government document of its type to identify the need to reduce obesity levels – unfortunately, this was not successful and by the review date of 2005 they had risen and have continued to rise. Since 1992, there have been a host of government publications that have focussed on a range of issues relating to diet, nutrition, healthy eating and the reduction in obesity levels (for example, DH, 1994; Scientific Advisory Committee on Nutrition, 2003; Sadler et al, 2012; Public Health England [PHE] 2015; 2016; 2018; 2019a; DH and Social Care, 2020). However, despite this, there remains a concern that the population as a whole is not having a healthy diet - this potentially has substantive health and wellbeing consequences.

The need for good nutrition begins at the pre-conception stage and should continue throughout the life course. What happens during the early years of life (from pre-conception to age 4-5 years) influences physical, cognitive and emotional development in childhood, and can set the trajectory for health and wellbeing outcomes in later life. This includes diet (PHE, 2018; Obesity Health Alliance [OHA], 2021).

This qualitative research study, commissioned by The Food Foundation, sought to gain insight into food, diet practices and nutrition during the pre-conception and pregnancy period, gaining the perspectives of those with the lived experiences.

Objectives:

To utilise qualitative data collection approaches to enhance insight and understanding of:

- The facilitators and barriers to healthy food and diet practices during pre-conception and pregnancy.
- How the barrier(s) to healthy diets at this life stage could be addressed.
- The changes required to facilitate good food practices.

Information in this report is derived from data collected via:

- Focus groups and semi-structured individual interviews conducted with a range of professionals working within health, nutrition and food contexts.
- Focus groups with parents and expectant parents from across the four nations of the United Kingdom [UK].

Key findings

Summary of findings from the professionals' focus groups and interviews

- 12 professionals, who represented a range of organisations across the UK, participated in the data collection providing a diversity of experiences and backgrounds.
- Three key themes emerged following the data analysis:
 - *Perceived facilitators of a healthy diet*
 - *Perceived barriers to a healthy diet*
 - *The way forward*
- Having knowledge and information was viewed as a key facilitator to a healthy diet. The participants felt that expectant parents/parents needed to understand what a healthy diet was; without this information, it would be difficult for them to eat nutritiously. Accessing relevant information could be challenging for a range of reasons (such as the lack of readily available engaging resources). Parents need consistent and accurate information from reliable and trustworthy sources; however, conflicting advice and mixed messages can be delivered (both from health professionals and wider sources).
- A range of barriers to healthy eating were identified. Most notably, the time required to purchase, prepare, and cook food, especially when lives were busy; this made convenience foods and ready meals more appealing. Affordability in terms of having the financial wherewithal to make healthy food choices and be able to cook it was raised as a key issue. Societal influences meant that there tended to be a stronger focus on western diets, although professionals, such as those working in foodbanks made every effort to remedy this. It was noted that many expectant parents/parents had not planned their pregnancy in advance, therefore, a healthy diet did not tend to be a key consideration in the pre-conception period; once

pregnant, other factors could impact on healthy eating such as nausea and sickness.

- In terms of the way forward, the participants identified the need for policy development that was implemented in a timely manner – this primarily related to financial support. It was recognised that the provision of resources that support expectant parents/parents to make healthy dietary choices can be inconsistent across geographical areas. Finally, but most importantly, health professionals, such as health visitors, should be appropriately educated themselves so that they can maximise opportunities when they have contact with expectant parents/parents so that relevant dietary advice can be provided.

Summary of findings from the parents' focus groups

- 19 parents from across the four nations of the UK took part in five different focus groups. Their demographic background was varied (please refer to Table 3.2), but there were four core themes that emerged following data analysis:
 - *Seeking information*
 - *Accessibility to healthy food*
 - *Nutritional needs during pre-conception and pregnancy*
 - *What would help expectant parents/parents*
- The participants identified a need to acquire information that was relevant to their needs, but they found that there could be inconsistency in terms of the health messages portrayed as well as a lack of individual, bespoke advice.
- Accessibility to healthy food could be restricted for a range of reasons, not least affordability with parents needing to plan their purchases; however, it was also clearly identified that expectant parents/parents (particularly when they already have a child[ren]) could be less inclined to buy food that required substantive preparation – to help address this, strategies were used to maximise their available time, these included: Online grocery shopping, stocking the freezer and planning family menus that required less preparation.
- In the main, parents had not overtly considered their diet in the pre-conception period (although there were a small number of exceptions to this); whilst there was a much greater awareness of the need to eat healthily in pregnancy, this could be curtailed because of nausea, food cravings as well as general tiredness.
- In terms of suggestions for facilitating a healthier diet during pre-conception and pregnancy, the participants felt that the government could take more action in terms of direct financial support (in the form of, for example, food vouchers and the subsidisation of nutritious foods) and developing a workforce that enabled expectant parents/parents to receive appropriate dietary education and advice.

Recommendations

The findings from this study highlighted key recommendations:

- Clarity is needed in terms of what a healthy diet is, especially considering the diverse cultural population that the UK now has; expectant parents/parents need clear information about what comprises a healthy diet in this important stage of their lives.
- Expectant parents/parents are actively seeking information; therefore, this needs to be provided in a clear, consistent, and engaging manner that embraces a range of diets (in particular, vegetarianism, veganism as well as different UK cultural food products).
- Expectant parents/parents need access to practitioners who can provide both generic as well as individually focussed advice.
- Health professionals need to maximise every contact that they have with expectant parents/parents so that opportunities to discuss health and nutrition are taken advantage of.
- To support the above point, practitioners need to be appropriately educated so that they can provide relevant dietary information and/or make referrals to other agencies.
- A life course approach to healthy eating is advocated, particularly as parents do not always plan their pregnancy; this strategy will enable all sectors of society to benefit.
- There should be a stronger focus on a positive approach to healthy eating, rather than a deficit one that highlights the negative aspects of a poor diet.
- There needs to be appropriate governmental financial investment, and supporting policies, to facilitate the above recommendations, but to also to help those most in need.

The Report

Section 1.0: Introduction and background

1.1 Introduction

This report summarises the findings of a qualitative research study that was commissioned by The Food Foundation in November 2021 and undertaken by the University of Hertfordshire between November 2021 and March 2022.

The title of the study was:

*Gaining insight into food, diet practices and nutrition during the early year's lifespan:
Pre-conception and pregnancy*

In addition, the research team developed the following objectives in order to refine the focus:

Objectives:

To utilise qualitative data collection approaches to enhance insight and understanding of:

- The facilitators and barriers to healthy food and diet practices during pre-conception and pregnancy.
- How the barrier(s) to healthy diets at this life stage could be addressed.
- The changes required to facilitate good food practices.

Information in this report is derived from data collected via:

- Focus groups and semi-structured individual interviews conducted with a range of professionals working within health, nutrition and food contexts.
- Focus groups with parents and expectant parents from across the four nations of the United Kingdom [UK]

All aspects of the project, including the writing of this report, were undertaken by the research team: Lisa Whiting (Project Lead) [LW], Rozalind Fallaize [RF], Jane McClinchy [JM], Kelly Parsons [KP] and Michael Fanner [MF].

1.2 Background

“Poor maternal nutritional conditions at the earliest stages of the life-course, during fetal development and early life, can induce both short-term and longer lasting effects; in particular, an increased risk of noncommunicable diseases and obesity throughout the life-course.” Jakab (2016: x)

Setting the foundations for health in the early years is crucial to ensure every child has the best possible start in life (Obesity Health Alliance [OHA], 2021). What happens during the early years of life (defined as the period from pre-conception to age 4-5 years) influences physical, cognitive and emotional development in childhood, and can set the trajectory for health and wellbeing outcomes in later life. This includes diet (PHE, 2018; OHA, 2021).

There is evidence that indicates that childhood diet can be poor with children not eating enough fruit and vegetables, but too much sugar and saturated fat – meaning that a substantive number of children start school with overweight or obesity (PHE, 2015). There are also disparities: Children living in the poorest areas are four times more likely than those from the wealthiest areas to be severely obese when they arrive at primary school (National Food Strategy, 2021). In the UK, regional disparities around income and health are mirrored by the quality of diets (The Food Foundation, 2022).

The first building bricks of dietary health foundations are laid during the very start of the early years period - during the phase of pre-conception and pregnancy (the focus of this research project). The reasons that pre-conception and pregnancy are important to dietary health are multiple and overlapping, the key factors are considered in Sections 1.2.1 – 1.2.3).

1.2.1 Maternal health

Studies on adherence to dietary guidelines among men and women during preconception and pregnant women, suggest nutritional recommendations are not being met (Caut et al., 2020). Poor maternal diets impact on babies in several ways. For example, inadequate food intake, low maternal weight and micronutrient

deficiency (especially of folate) are linked to low birthweight (Chief Medical Officer [CMO], 2015). Folic acid is important for the development of a healthy foetus, as it can significantly reduce the risk of neural tube defects such as spina bifida. Folic acid supplement use varies by level of deprivation, with a higher proportion of women in the least deprived areas taking folic acid supplements in early pregnancy than those in the most deprived (PHE, 2019a). Beyond birth, poor diets and obesity are risk factors – along with alcohol and drug use, mental health, smoking - all associated with the likelihood of developing lifelong diseases (PHE, 2019a).

1.2.2 Maternal overweight and obesity

Women who are obese have lower fertility rates and are at greater risk of early miscarriage; they are also more likely to have a stillbirth and complications in pregnancy and labour (PHE, 2019a). Health inequalities are also evident here as the proportion of women who are overweight or obese in early pregnancy rises as levels of area deprivation increase (PHE, 2019a). There is an intergenerational obesity effect, with early life undernutrition, maternal diabetes, gestational diabetes, and maternal obesity being associated with increased risk of diabetes and obesity in the offspring, as well as a younger age onset of diabetes (Ma and Popkin, 2017). Evidence suggests that breastfeeding is a significant protective factor against obesity in children (as well as protecting mothers themselves against breast cancer, ovarian cancer, and obesity) (Yan et al, 2014). However, mothers who are overweight or obese are less likely to breastfeed (Fair et al, 2019).

1.2.3 Support services

Pregnant women's dietary behaviour is influenced by a range of factors, including nutrition knowledge (Arrish et al, 2017). Pregnant women are perceived to be more receptive of nutrition information; nutrition education and counselling has been shown to be an effective approach for improving maternal nutrition in pregnancy, particularly in reducing maternal anaemia, increasing infant birth weight, and decreasing preterm births (Arrish et al, 2017; Caut et al, 2020). However, provision of nutrition advice by antenatal care providers is not common practice (Arrish et al, 2017). In theory, dietary advice can be provided by multiple services, including midwives, health visitors and

relevant health practitioners in environments such as children's centres. One of the planned functions of Sure Start children's centres was to provide nutritional advice to parents and promote physical activity in the young. However, both health visiting and children's centres have been negatively impacted by budget cuts, linked to the reduction in funding to the local authorities responsible for this provision (OHA, 2021). This is despite the protection of investment in early years services being a key recommendation of the Marmot Review (Marmot, 2010) that focussed on reducing health inequalities. Research has linked cuts in spending on children's centres with negative impacts on childhood obesity (Mason et al, 2021).

Other support programmes target dietary health in disadvantaged communities. The Healthy Start programme provides vouchers for healthy food for those claiming benefits and who are pregnant or have young children. Cuts in such programmes have had an impact on the availability of food for poorer families. Between 2014/15 and 2017/18 the number of children eligible for Healthy Start fell by 20 percent (Marmot et al, 2020). Food welfare budgets, providing fruit and vegetables, milk in nurseries and healthy eating initiatives to poorer families, fell by 26 percent in the same period (2014/15 to 2017/18), from £141.3 million to £104.7 million (Marmot et al, 2020).

There is also evidence that health professionals do not have the expertise to provide dietary advice that assists women to achieve healthy pregnancies. For example, midwives struggle to provide guidance, especially on challenging issues such as obesity, despite acknowledging it as part of their role, and report barriers including lack of time, resources, and the models of care currently being utilised (Arrish et al, 2017). Health visitors have also been identified as having a crucial role in reducing health inequalities. Again, this potential is undermined by a lack of training and update sessions for health visitors and their teams; the Institute of Health Visiting (2019) in their 'Vision for the Future' states that without investment in the health visiting workforce, the capacity of health visitors to influence health inequalities is significantly reduced (Stacey and Gilroy, 2019). Although pockets of good practice do exist (Watson, 2015).

1.3 What action is needed?

As illustrated above there are missed opportunities to establish solid health foundations. Making progress on tackling rising rates of overweight and obesity, and other the negative health impacts of suboptimal diets, including, for example, dental decay, will require a more significant focus on how and what children are fed in the earliest years (Sibson, 2022). An important phase which does not get adequate attention is pre-conception: Interventions such as increasing physical activity in overweight mothers are likely to be too late, and there is a need to target dietary and physical activity changes earlier, in those at reproductive age (Ma and Popkin, 2017).

A range of policy measures have been proposed to help to address poor diets and are specifically relevant to the pre-conception and pregnancy phase, these include:

- Improvements in statutory family support services, enabled by increased funding for Local Authority provision (OHA, 2021; Sibson, 2022), and in particular:
 - Health visiting: Ensuring delivery of universal health visiting services and a minimum of seven parent and infant face-to-face contacts with a health visitor, as set out in the 2021 Healthy Child Programme (Sibson, 2022).
 - Family Hubs and Sure Start Centres: Following through on the government's commitment in the Autumn 2021 budget to fund Family Hubs¹ in half of all council areas, which will offer a range of services to support pregnant women and young families to eat well (Sibson, 2022).
- Nutrition training for health professionals who have contact with pregnant women, ensuring nutrition education is in core curricula (Sibson, 2022; Arrish et al, 2017).
- Collaboration between the various early years support services and nutrition and education professions (Arrish et al, 2017).
- Reforms to the Healthy Start scheme, including raising the threshold for receipt, enhancing the offer for breastfeeding women, increasing the scheme's visibility and accessibility; integrating the scheme with other benefits and services for

¹ A family hub is a system-wide model of providing high-quality, whole-family, joined up, family support services. Family hubs deliver these family support services from pregnancy, through the child's early years and later childhood, and into early adulthood until they reach the age of 19 (or up to 25 for young people with special educational needs and disabilities). <https://www.nationalcentreforfamilyhubs.org.uk/about-us/why-family-hubs/>

young families, for example, cookery sessions and breastfeeding support delivered at Family Hubs (Sibson, 2022; National Food Strategy, 2021).

- Food education, including on the importance of health and eating well, before and during pregnancy, and breastfeeding as a normal human activity (Sibson, 2022).
- Broader changes to the food environment, such as restricting the advertising and sale of unhealthy food (OHA, 2021; Sibson 2022; The Food Foundation, 2022).

The above commentary has demonstrated that nutrition and diet during the pre-conception and pregnancy life stage can have a substantive impact on the health and wellbeing of children, both during childhood as well as later life. Whilst previous work has provided a valuable body of evidence (as well as recommendations for good practice), the views of professionals and parents have not been overtly sought – this perspective is crucial so that the challenges faced by those directly concerned can be heard and then potentially addressed. This research study aimed to gain insight into the perspectives of those who have the lived experiences.

Section 2.0: Undertaking the research: Methodological approach and data collection methods

2.1 Introduction

This section will provide an overview of each aspect of the research process that was undertaken within the study. The qualitative nature of this research guided the approaches used with data being collected via:

- Three focus groups as well as four semi structured interviews with professionals working within a health, diet or nutrition context.
- Five focus groups with parents/expectant parents from across the four nations of the UK.

Initially, the methodological approach will be discussed; this will be followed by an overview of the data collection tools, recruitment processes, data collection procedures, ethical considerations and analysis.

2.2 Methodological approach: Qualitative research

Qualitative research involves asking “*open questions about phenomena as they occur in context rather than setting out to test predetermined hypotheses*” (Carter and Little, 2007: 1316). The approach enables in-depth and rich data to be collected and aims to gain a greater insight into participants experiences. A qualitative approach was consistent with the aim and objectives of this study.

2.3 Data collection tools

2.3.1 Focus groups and interviews

A total of eight focus groups were undertaken, three with professionals working within a health, diet or nutrition context and five with parents. Focus groups provide the opportunity to gain insight into the participants’ experiences, but they are also beneficial inasmuch as they are economical in terms of time but can also provide a more ‘comfortable’ environment for those who may feel that they have little to

contribute or who are reluctant to speak (Lane et al., 2001) – this was particularly pertinent to parents who may not have previously participated in a research study.

As a result of other work commitments, not all of the professional participants were able to attend a focus group, therefore, an individual semi-structured interview option was provided at a time that was suitable for each person.

As some COVID-19 pandemic precautions were still in place, all focus groups and interviews were conducted via Zoom. Guidelines for the focus groups were written and 'prompt' questions were drawn up for both the interviews and focus groups to maintain consistency and maximise data collection.

2.3.2 Demographic questionnaire

In addition to the focus group, the parent participants were asked to complete a short demographic questionnaire, this was given to them via an online platform for their ease of completion. The questionnaire asked for details about the participant's age, gender, postcode, current situation in terms of planning a pregnancy or being pregnant, other children as well as four short questions that were based on the Family Affluence Scale (Currie et al, 1997; Currie 2001; Currie et al, 2004).

2.4 Parent advisory group [PAG]

One of the recognised methods of consulting with parents, and of involving them in decision making processes is via an advisory group – this enables key documentation, terminology, and data collection approaches to be parent-friendly. A PAG, comprising of three parents was established to inform the planning of the study as well as its associated documentation. Consultation with the PAG was via email; the parents provided comprehensive commentary and their feedback was integrated into the study. The PAG members received a 'thank you' letter and gift voucher as an acknowledgement of their time.

2.5 Recruiting the participants

Sample sizes in qualitative work can be difficult to establish in advance; however, it is acknowledged that the number of participants involved is normally small, due to the depth of data that can be obtained (Parahoo, 2014). Qualitative research often draws on purposive sampling as this facilitates the recruitment of appropriate participants (Polit and Beck, 2006); two key groups of people were recruited for this study, using a purposive sampling approach:

- Professional representatives from the following contexts:
 - Health
 - Diet and nutrition
 - Food banks
- Parents/expectant parents from across the four nations of the UK.

The professional representatives were recruited by emailing key organisations and inviting participation from a relevant member of staff; parents/expectant parents were recruited via appropriate Facebook sites. The professionals' data collection was undertaken first, thus enabling the data to inform the parental/expectant parent focus groups.

2.6 Data collection procedures: Focus groups and interviews

Eight focus groups and four interviews were conducted; two members of the research team were present at every focus group and one member with each interview. The data collection took place between February - March 2022. The focus groups with the professional participants (three in total) lasted for between 58 and 72 minutes with the interviews being between 28 to 55 minutes. The five parent focus groups were between 34 and 76 minutes duration.

All the focus groups and interviews were conducted via Zoom and were digitally recorded, with all participants consenting to this. The recordings were sent securely to an established transcription agency who produced word for word transcripts.

2.7 Ethical Considerations

Ethical approval to conduct the study was sought and gained from the Health, Science, Engineering & Technology Ethics Committee with Delegated Authority at the University of Hertfordshire [protocol number: HSK/SF/UH/04840].

Whilst it was not anticipated that the research would cause undue distress, it was acknowledged that this can always be a possibility. In case a participant wanted to debrief, time was allocated at the end of each interview/focus group; in addition, Support Service Information Sheets were available for parents, should they need to seek further advice (however, no participants did exhibit signs of distress).

The maintenance of confidentiality is fundamental to research with human subjects; to protect this, the following actions were taken:

- All participants' names were removed from the focus group/interview transcripts.
- All data was stored securely on the University of Hertfordshire OneDrive.
- Care has been taken when reporting all the findings to protect participant identity.

All potential participants were provided with a Participant Information Sheet. Informed consent was achieved from the professional participants via the signing of the consent form or by verbally recording it; parents were able to complete the consent process via the same online platform as the demographic questionnaire.

2.8 Data analysis

The data analysis focussed on the two separate data sets from:

1. The three focus groups and four semi-structured interviews with the professional participants.
2. The five focus groups with parents/expectant parents

The analysis of qualitative data:

“Involves organizing, accounting for and explaining the data; in short, making sense of data in terms of the participants' definitions of the situation, noting patterns, themes, categories and regularities.” (Cohen et al, 2007: 461)

Each of the data sets was analysed in turn and was primarily undertaken by RF and JM. LW acted as a third person, verifying the process undertaken. A thematic analysis approach was chosen with the framework by Braun and Clarke (2006) being drawn on:

1. Becoming familiar with the data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing the report

The transcripts for each data set were initially read several times before initial coding was undertaken - NVivo (version 12) was used to facilitate this process and a 'codebook' was generated; this procedure enabled the identification of rudimentary themes, which were reviewed and 'collapsed' before being named. The participants' actual words are used to illustrate the themes (Section 3.0), as advocated by Chiovitti and Piran (2003), to ensure accurate reporting of the findings.

Section 3.0: Findings

3.1 Introduction

This section presents the findings that emerged from the analysis of the focus groups and semi-structured interviews; discussions are supported by quotations taken from the participants' transcripts. In order to maintain confidentiality, names have been replaced by P (for professionals) and Pa (for parent), followed by a number.

3.2 Findings from the focus groups and interviews with professionals

Section 3.2 presents the three themes that emerged from the focus groups and interviews that were conducted with the 12 professionals:

- *Perceived facilitators of a healthy diet*
- *Perceived barriers to a healthy diet*
- *The way forward*

Each of the themes has sub-themes and these are presented in the following sections.

Table 3.1 provides further details about the professional participants.

Participant [P] Identifier	Organisation	Professional Background
P1 [Focus Group]	Royal College of Midwives, a professional organisation and a trade union that covers all four nations of the UK: https://www.rcm.org.uk/about-us/	Midwife and policy advisor.
P2 [Focus Group]	Institute of Health Visiting, a national organisation: https://ihv.org.uk/	Programme manager, one area being healthy weight and nutrition.
P3 [Focus Group]	Office for Health Improvement and Disparities [formerly Public Health England], part of the Department of Health and Social Care: https://www.gov.uk/government/organisations/office-for-health-improvement-and-disparities	Nutritionist focussing on early years and child weight management.
P4 [Focus Group]	First Steps Nutrition Trust, a UK-based and UK-focussed non-government organisation: https://www.firststepsnutrition.org	Nutritionist – focussing on eating well from pre-conception to 5 years of age.
P5 [Focus Group]	British Nutrition Foundation, a national body: https://www.nutrition.org.uk/	Nutrition Scientist, focussing on disseminating evidence; interest in pregnancy and early years.
P6 [Focus Group]	Foodbank in Leicestershire	Foodbank manager.
P7 [Focus Group]	Freelance, not affiliated to a specific organisation.	Dietician with a paediatric background – now working freelance.
P8 [Focus Group]	FoodShare Charity based in Kent https://www.foodshare.charity/	Trustee.
P9 [Interview]	Not affiliated to a specific organisation.	Registered nurse and health visitor, has MSc in Nutritional science, author of book on infant weaning.
P10 [Interview]	Independent Food Aid Network, a national organisation: https://www.foodaidnetwork.org.uk/	Key senior role in the organisation.
P11 [Interview]	Institute of Health Visiting, a national organisation: https://ihv.org.uk/	Focusses on project management. Health visitor and children's nurse by background
P12 [Interview]	Developments Ltd – the business entity for Action for Children, a UK-wide charity: https://www.actionforchildren.org.uk/	Operations manager involved in the provision of childcare in nurseries and school settings.

Table 3.1: Details of the professionals who participated in the focus groups and interviews

3.2.1 Theme 1: Perceived facilitators of a healthy diet

This theme focussed on two key areas: *Knowing what a healthy diet is* and, secondly, the *Sources of information*.

3.2.1.1 Knowing what a healthy diet is

The professionals thought that expectant parents/parents firstly needed to “*know what a healthy diet is*” [P3] and felt that parents probably understood the need to eat fresh fruit and vegetables:

“I think most people have a, you know, they have a general understanding, ‘I need to eat more fruit and veg and less sugar.’” [P2]

“I think if you ask probably anyone...they know they should eat five lots of fruit and vegetables a day and I think that message has been hammered home and I think they probably know, but it’s probably boring and expensive and if you can’t cook or you don’t know how to cook or you don’t have support to do it or the facilities.” [P9]

However, it was also felt that there were different types of diet being promoted or discussed in the media (such as veganism and vegetarianism) so it could get confusing and mean that people may not “*know what a healthy diet actually is*” [P3]; it was felt that opinions about what makes a healthy diet varied from person to person and that there was no standard definition or approach.

Those who were more educated could actively seek out the information that they needed:

“You would literally have parents who are very well off, very well resourced and educated in every way who come to speak to you almost about nutrients rather than food.” [P9]

The use of the media could potentially lead to the public receiving mixed messages about nutrition and a healthy diet:

“There’s so much information floating around there, but actually not a lot of robust, good information. So, there are a lot of reliance on social media, magazines, advertising. It’s like even today I heard on the news that Greggs are now collaborating with Primark to produce clothing, and you’re like, ‘That is just...’ I can’t even begin to think how many mixed messages that’s going to send out....there’s not a lot coming from research, professional background, it’s all about what’s fashionable.” [P2]

“How much do pregnant women, but also any adults, really understand what eating well really looks like?...Like more of a focus maybe on what they

shouldn't eat as opposed to what they should eat. I think it's much more common to be concerned with trying to remember the rules around raw foods and cheese and whatever than trying to maintain a focus on what healthy eating looks like, which isn't a great deal different from healthy eating pre-pregnancy." [P4]

It was felt that the association between companies such as Greggs and Primark would facilitate the promotion of each other's products and, in the case of Greggs, this could lead to unhealthy meal purchases (such as sausage rolls). Further comments were made about television advertising and social media and the impact that that it could have:

"I think that's a way to get to the modern woman, the modern pregnant woman nowadays. That's something that really needs to be considered." [P3]

The potential misunderstanding about what comprised a healthy diet could be exacerbated by the usage of 'ready' meals; it was thought that parents could be believing that they are purchasing a healthy option, when, in fact, they were not:

"Assuming because of the traffic-light system or it says it's healthy or lower in fat or something, assuming that means it is an actual healthy choice when it probably isn't." [P2]

"I can't help but go back to labelling because I think that's one of the key things that are really a) confusing the general public, and b) just not, it's just not good enough...Even explaining the traffic-light system, people didn't even know what the red, yellow and green meant. And also, then there's the confusion that some bits are red, some bits are yellow, some bits are green. 'Oh, there's two greens on there and two reds, that must be fine'." [P3]

There was additional discussion about labelling and the traffic light system that can alert customers to unhealthy foods. The lack of knowledge and the omission of the traffic light approach (especially in the budget supermarkets) meant that foods could be wrongly perceived in terms of their content and portion size:

"So, people who maybe don't have that previous knowledge of what is a healthy and unhealthy food and they see a cottage pie or lasagne and they think, 'Okay, that's normal dinner' is actually huge, over-portioned." [P3]

The issue of portion size was discussed specifically in relation to pregnancy and the idea that:

“Oh, you’re eating for two now,’ everybody always says that, and we know that’s incorrect...but then that means pregnant women are eating double what they should be eating. So, I think there is definitely something around portion sizing, the messaging and education around that.” [P2]

“So, I mean there still might be the myth that you’re supposed to eat for two.” [P5]

“On the prebirth phase there are one or two people saying, “I’m pregnant. I’m eating for two. Can I have more?” Kind of thing. Rather than saying, “My health visitor suggested...We’ve never been asked to provide anything specific because somebody is pregnant or trying to become pregnant.” [P8]

The UK obesity epidemic was raised, and it was felt that there was a “desensitising” [P3] approach to it. The emphasis on obesity could also mean that other health implications of a poor diet were not so overtly acknowledged:

“So, the diabetes, the malnutrition, all the other things which happen with a poor diet and just think, ‘Oh, we can stop people eating less calories and get thinner, that solves the problem’ and it doesn’t necessarily.” [P2]

“It might even be something as simple as going, ‘Oh, I know porridge is really healthy for breakfast. I’ll have porridge. Oh no, I don’t know how to make porridge. I can’t make porridge with the saucepan on the thing. I’ll buy the readymade golden syrup porridge which I just add hot water to,’ thinking it’s porridge, it’s healthy. It’s golden syrup or maple syrup, natural syrup, it’s healthy. But actually, it’s not.” [P2]

3.2.1.2 Sources of information

The professionals felt that information played a substantive role in terms of facilitating a healthy diet in the pre-conception and pregnancy, but that it needed to be retrieved from credible sources. Whilst it was acknowledged that websites and resources produced, for example by the NHS [National Health Service], were to be recommended, parents/expectant parents could feel that these sites did not always give them the detail that they needed in a format that was engaging – as a result they sought information from other places, and this could lead to mixed messages being given:

“So, they’re going to seek messages elsewhere and they might get it from companies, and what companies say might actually not be aligned with public health policy. So, I think you do have a challenge in terms of consistency of messages that align with public policy and families and parents, parents-to-be knowing where to go to get that information and which to trust.” [P4]

It was felt that there could be a lack of a co-ordinated approach and that people need to be able to easily access information:

“I think that would probably be true in terms of a pregnant person struggling to afford food to find all the information that they need. One of the things that we always put on our leaflets is something around Healthy Start vouchers so that people can now be made aware, as much as possible, that they can apply online for these vouchers.” [P10]

Engaging with women via platforms that they are familiar with and *“harnessing technology”* [P5] so that information is readily available in a user-friendly format may help in terms accessibility from trusted sources.

Health visitors (more than midwives) were mentioned as a key professional in terms of nutritional advice and referral, for example:

“The health visitors are a significant referrer to us [foodbank] in terms just of the numbers of people. I know there was a lot of new mothers amongst those.” [P7]

However, there was a view that advice from health professionals was not always consistent and that was then challenging for parents (*“So, it’s just that conflicting messages.”* [P12]).

There was also discussion, by several participants, about foodbanks not providing formula milk so referral to other children’s wellbeing services were consequently made. Overall, participants felt that nutritional advice was limited in the pre-conception and pregnancy period with the main emphasis being on supplements such as folic acid and foods that should be avoided (for example, soft cheeses and raw or partially cooked eggs).

However, it was felt that education about a healthy diet should not just be left to health professionals, rather it had to be a “*whole-society change*” [P4] and a “*whole societal approach, like most public health messages*” [P2] that starts in nurseries and schools. Comments were made about how the teaching of cooking skills had changed in schools over the years:

“Back in my day we were taught how to make shepherd’s pie or an apple crumble, taught how to make our own pastry, and that kind of thing was a skill that we were taught while we were at school. And actually, you know, there’s a lack of confidence and that translates into competence amongst families now. And I just think, and they rely on fast food because they don’t have the skills to prepare food that is affordable. So, it’s easy to say, ‘Well, you go round the supermarket and a cauliflower is 70p so why don’t they...?’ well, because you need a bit of knowledge about how to prepare the cauliflower to make it tasty for your kids, so they’ll eat it and it doesn’t end up in the bin.” [P1]

“It’s a lack of knowledge and maybe skills of how to cook and prepare the food even once they’ve bought it. Like I think preparing vegetables, there’s a barrier with them, people having the skills to do that.” [P5]

One participant [P5] commented on the cooking courses that are advertised in the local area and another [P4] talked about the taste classes for young families, but these opportunities needed to be readily accessible and at times that fitted in with everyday life. There was recognition that parents frequently sought information from non-professional sources, such as family and friends and social media, particularly as these avenues were readily accessible; whilst they were acknowledged to be a key point of contact, concern was expressed that that this may result in erroneous advice being given.

3.2.2 Theme 2: Perceived barriers to a healthy diet

This theme focusses on the potential barriers to a healthy diet that were revealed, these are now presented: *Time as a resource; Affordability; Societal influences; Planning to become a parent.*

3.2.2.1 Time as a resource

It was acknowledged that one of the key barriers was time and the fact that families were busy:

“It’s about people’s lifestyles as well and how busy they are and whether it’s a first-time mum and they’re still working, or they’ve got lots of children and therefore there may be a lot of reliance on buying readymade food” [P2]

“Pre, post-pregnancy that they may well be working full time, haven’t got the right nutrition, don’t have the knowledge for the nutrition, they’re working full time, they’re stressed still, cortisol still running through their brains, there’s a lot in that. There’s a lot in that time management and working, and full-time employment. Women are working now to two weeks before birth, which is quite normal, but I don’t know, I think time management is something else.” [P3]

“A lot of our vulnerable families, it tends to be that they go for the convenience foods, rather than cooking something from scratch....also I think it’s more difficult for those working parents where time is a bit of a restriction, because they’re always rushing around.” [P12]

“But if you are working really hard and you’re pregnant you’re just bloody worn out. The thought of having to spend 30/40 minutes cooking is, you know, maybe too much at the end of the day.” [P9]

Other participants reiterated this point commenting on the length of time required to buy, prepare, and cook food rather than eating out or buying a ready meal. It was felt that parents needed ‘tips’ about what can save time but mean that a meal is healthier – for example, using a pre-prepared tomato sauce, but one that is lower in salt and sugar.

Foodbank participants also spoke about cooking skills and the availability of ready meals and ‘junk’ food commenting that:

“But it’s not uncommon amongst people maybe in their 20s and 30s, we give them some fresh food in the form of meat to be cooked, for example, and they will say, “Have you got anything readymade?” Yes. That’s certainly not uncommon. Not all of them by any means, but we get that kind of push back. We have offered to use one of our kitchens to do cookery lessons, demonstrations and say, “We’ll provide everything. You can make some meals, you can take them home with you, you can get some free food, more food.” No real interest to take that up... a very strong demand for things which are largely readymade.” [P8]

“Just no interest at all in healthy eating per se. There’s a great desire for junk food... popular choices are for fizzy drinks and crisps. People are always asking for those.” [P8]

The foodbanks were trying to provide a balanced diet, but this could be challenging because of people's food requests and the donations that they received. Food was frequently tinned, and packet based, but aimed to be nutritionally balanced; however, it was not unusual for part of the food box to be rejected, therefore having an impact on the person's diet. There was an agreement that:

"Getting a hot meal on the table is more important...so the convenience aspect of it is appealing. So, I think all of those are barriers to nutritious intakes." [P7]

Likewise, one participant [P12] commented:

"Some parents, it's a lot of that processed food. You know, the oven chips, the fish fingers, that kind of thing. So, we try and educate the parents." [P12]

There was also agreement that expectant parents/parents who visited foodbanks, frequently did not have good cooking facilities with sometimes only having access to a kettle, so this limited the food available to them with convenience food therefore being more attractive.

3.2.2.2 Affordability

The cost of food and an affordable diet was raised by the participants and, as a result it was felt that:

"There are a lot of people that are excluded from having a healthy diet. And there can be a disconnect between the advice that we're giving and the information that is available to pregnant women and families and what is the reality, the reality of their lives. And that's not just the food they can afford but the fuel to cook it and the facilities to prepare it, the time to consume it. It's just such a complex picture" [P1]

"You know, if you're living in a bedsit or shared accommodation, you're cooking facilities aren't great, your food storage facilities might not be great. If you're even living at home with parents maybe you can't get to eat what you want to eat because you're eating what they want to eat." [P9]

"That comes down to being able to afford to have those choices...people just don't have the choice to even contemplate a healthy diet or thinking about what's best for their bodies while they're pregnant." [P10]

The financial support to lower income families was highlighted:

“There’s a range of issues in terms of the benefits and schemes out there that are meant to act as safety nets and support lower permanent socioeconomic families to eat well amongst other things. Food insecurity is, at the end of the day, poverty, functional poverty.” [P4]

The challenges with Universal Credit were also raised (such as the lengthy wait to access it) and the fact that:

“There’s a two-child limit, which is really going to impact on women who are pregnant with their third child...They’re not going to be able to get any additional support there...The benefit cap has a huge impact on pregnant women, or women with children.” [P10].

Whilst accessibility to a healthy and nutritious diet was highlighted, it was felt that this was less of an issue for those on a higher income as they had the financial ability to access food via a range of mechanisms (such as online or travelling to appropriate shops). It was perceived that those on a lower income may need to prioritise other factors:

“Specific advice around what’s best if you’re just trying to keep a roof over your head or having to make decisions about whether you eat or heat your home. The mental health pressure that people are under when they’re struggling to afford food is they’re struggling to afford anything, so they’re really up against it. So, this is going to be low down on their priority list, I would imagine. There must be a realistic expectation of people who are in those kinds of circumstances.” [P10]

The above point was echoed by several other participants who felt that mothers may prioritise heating and food for their children over themselves (even though they need a nutritious diet themselves). Providing advice and recipes in terms of cheaper foods was felt to be important (the low cost of vegetables, such as carrots was given as one example).

3.2.2.3 Societal influences

It was felt that much information in the UK was primarily aimed at a western diet and that there was little consideration of cultural differences, this meant that the advice that parents were provided with was not always perceived to be relevant to them:

“Parents being told by nursery, ‘Oh, you’ve got to be introducing these foods,’ and parents are like, ‘But that’s not my food. That’s not what I’m feeding them’”
[P2]

The above point was also made in relation to foodbanks and the available food – it was felt that parents may not be familiar with certain foods and know how to prepare it. However, one of the foodbank participants explained that they made every effort to be inclusive:

“That’s mainly vegetarian, because we’ve got a multicultural background, so we decided if you do it vegetarian, then everyone can take part in that. People have said, “I’ve never, ever made this before.” It’s a fairly simple dish, but they’ve never, ever made it before, and how wonderful it is, and now it’s on their weekly menu, sort of thing. We try really hard to get the information out there on how to use different foods and doing it in a quick and easy way but being nutritious.”
[P6]

“We support a wide range of dietary requirements for people on gluten free, or Halal food, or vegetarian, or whatever. If we know about it - and there’s a facility on our voucher system to make those things quite explicit - we support all those things. We’ll certainly buy in specialist foods. I’m often buying Halal food, for example, because I don’t get much in that way donated.” [P8]

It was acknowledged that a person’s local area as well as their family and friends could influence dietary intake. For example, if the local town had an excess of takeaway food restaurants, and family/friends used these, this could negatively impact on food and nutrition behaviour:

“It may well be that their hometown may be a low socioeconomic town and they have a lot of fast food and a lot of these kind of unhealthy avenues available to them and there might be conflicting advice there again from a friend, a neighbour, someone else whose sister has children.” [P3]

Parents could also be influenced by their faith, for example, fasting during pregnancy; although it was acknowledged that this was not generally a requirement, it was felt that women may do it anyway because of those around them.

3.2.2.4 Planning to become a parent

It was agreed that a healthy diet was required during the pre-conception and pregnancy period and that it should then continue throughout the life course, for example:

“It should start from that preconception because I just think that if you’re planning to have a baby, then you should be looking at having a healthy diet. When you’re pregnant, you should be looking to have the healthy diet.” [P12]

However, it was felt that most women did not strategically plan their pregnancy so little thought was generally given to nutrition at that time:

“Only a small a percentage of people actually plan to get pregnant that they don’t think about the pre-conception period. More people will plan longer to go on holiday than they will to get pregnant. So, it’s really hard to influence the, basically pre-conception is any time a woman is not pregnant because you could get pregnant at any point.” [P2]

“We have the problem that there’s a lot of unplanned pregnancies, and to remember, I think the backdrop, an important backdrop is we don’t want women to start thinking about eating healthily and being a healthy weight just to conceive; we would hope that they’re, from childhood and into adolescence etc that we’ve got generations of children becoming adults who understand what eating well looks like and can make healthy food choices.” [P4]

“So, the research and insights from parents is they don’t necessarily think about preparing for a baby necessarily in the same way they prepare for other things.” [P11]

Once pregnant, there were other factors that came into play, including how a women may feel, and this may have an impact on diet and nutrition:

“During pregnancy there are a number of issues of how people can actually feel that they can eat healthily. Like obviously the side-effects of being pregnant, nausea and all those sorts of things, so the last thing, you often feel you just eat what you want to eat.” [P5]

It was felt that there was also a societal acceptance that, in pregnancy, *“you can overindulge and it’s fine because of what you’re going through.” [P4]*. Whilst most conversations focussed on the woman, the need for men to have a good nutritional diet in the pre-conception period was also briefly considered – it was suggested that

the nutrition of the potential father, when planning a pregnancy, was equally important to that of the mother.

Overall, the view was that the focus needed to be on women's nutritional health more generally, rather than just pre-conception and pregnancy, especially because many did not carefully plan and prepare for motherhood. However, during pregnancy, there was a *"short window of opportunity because you are in contact with health professionals"* [P5] and there was a feeling that this could and should be maximised.

3.2.3 Theme 3: The way forward

All of the participants suggested a range of initiatives and actions that could potentially be taken to enhance diet and nutrition during pre-conception and pregnancy, these are reported below: *Policy; Provision of resources; Making every contact count.*

3.2.3.1 Policy

The need for further policy development was highlighted; it was noted that there was, for example, key publications such as: *Turning the Tide* (OHA, 2021), *Eat Better, Start Better* (Action for Children, 2017), *The Eatwell Guide* (PHE, 2016) and NICE [National Institute for Health and Care Excellence, 2014] guidance, *"but it's not policy"* [P2].

"I believe that there actually should be more policies...I think there needs to be more kind of rules and regulations around what like companies are allowed to produce, what labelling, sorry, had to go there, labelling should and shouldn't be allowed. I think there needs to be a lot clearer advice." [P3]

"I'm afraid I think the government pussyfoot around with it and they really need to tackle this head on." [P1]

Other participants used phrases such as the government employing a *"stopgap"* [P10] and *"plasters"* [P2], intimating that the nub of the problems were not being fully addressed; in particular, the financial needs of families was highlighted:

"The government could do more to ensure that employers pay a real living wage to everyone with jobs, and that job security is prioritised, so that people aren't on zero-hour contracts and struggling to make ends meet with that kind of stress in their lives. Often, parents, mothers are trying to manage on zero-hour contracts." [P10]

There was also a thought that local government could take more action, but that they did not want vacant shops, *“they want the council tax, they want the rents”* [P2].

Participants thought that consideration particularly needed to be given to television advertising and how unhealthy diets were promoted; in addition, there was a view that businesses themselves should be thinking more ethically and that consideration needed to be given to the products that support and endorse, for example, sports events:

“I know they’re a business so they do have to make money, but they should be, in this day and age they should think in a more ethical way. So, being more upfront and honest about what’s in their products and what they are, and then actually maybe think about reformulation and making healthier products, not pack them full of sugar and salt and fat to make it taste nice and sell more. Actually, let’s make this nutritionally good, for want of a better phrase.” [P2]

“So sponsoring of sports companies and things, or like Coca Cola doing their gym stuff, their sports equipment for schools and stuff and trying to put this thing out, ‘Oh, we’re healthy because we’re supporting these organisations,’ or, ‘We’re doing this campaign to get people active at school or in their local communities.’” [P2]

A positive example was given in terms of an action by one supermarket:

“It’s really excellent to hear that Iceland is now advertising certain items that Healthy Start vouchers could be used for. So, that’s a positive in the right direction in terms of supermarkets helping out with this sort of thing.” [P10]

Particularly in terms of pregnancy, it was felt that some of the policies/procedures that were in place were not wholly supportive of the pregnant woman and that this needed to be remedied, for example:

“So, women are weighed at the beginning of their pregnancy, just once, and that’s it. That, I have to say, is a bit of a sore point. A lot of midwives feel that a lot of women feel there’s a walk of shame to the scales where they get weighed, it gets recorded in their notes, the BMI sticks out there, either they’re okay, they passed that test, or they’re referred to specialist services. And then the stigma kicks in around their weight. There’s a whole question about whether, is that healthy, on all sorts of levels, to weigh women in that way and make perhaps judgments about women from then onwards. And I think we have to be incredibly careful about how we handle this issue for women in pregnancy.... There is no consistent guidance.” [P1]

There was a suggestion about government subsidisation of healthy food and more heavily taxing less healthy ones (for example: *“You know, reducing the cost of healthy food... that needs a strategic approach”* [P11]) – however, *“this government is certainly not the slightest bit interested in going in that direction, because of its ideology, and big food manufacturers pull a lot of strings.”* [P8].

In essence, the view was that there needs to be ‘joined-up’ thinking in terms of policy development as well as a more expedient implementation process as it can take considerable time to disseminate evidence and put it into practice:

“There’s a massive time lag between what science is telling us is bad for our health in terms of diets and the public, how that is put into policy and then translates into public health messages.” [P4]

3.2.3.2 Provision of resources

There was a concern that there were inconsistent resources and facilities available across the UK, this was felt to be inappropriate and was a matter that needed addressing:

“If I think about the pre-conception period, which will be health visitor led as opposed to midwife led, that’s, you know, you may come across a woman who is not a healthy weight or doesn’t have a particularly healthy diet and some areas you’ll be able to refer them into a clinic or get the GP to refer them on to somewhere. Other places there won’t be anything, they won’t meet the threshold or there’s not enough places, or it might just be, ‘Oh, here’s some vouchers for Slimming World.’” [P2]

“There’s Healthy Start, which is a programme of support for those that meet the eligibility criteria, those on low incomes. Not however with nil recourse to public funds, which is a separate issue. But it is there to support families with young children and pregnant women as well with healthy foods. And could argue that the value of that should be increased and it should be more widely and easily accessible.” [P1]

“The Healthy Start scheme is important for certain group of low-income mums or mums to be. But, you know, we have challenges in that what it is on paper and how it’s delivered in practice diverge and we’ve got low uptake. So that’s sort of an important reality in the background as well.” [P4]

“With the Healthy Start vouchers, we would agree with Feeding Britain, actually, who are advocating that you automatically have access to Healthy Start

vouchers, rather than having to sign up. That would be a policy that you could change quite easily that would ensure that there was 100% access to Healthy Start vouchers, for a start.” [P10]

Families need more support to enable them to make healthy decisions; that support could come via several mechanisms, such as Children’s Centres and Family Hubs, but it also needs to stretch across the broader community. It was noted that, for example, there was little incentive to breastfeed as mothers do not get any additional financial remuneration to facilitate the additional calories and nutritional diet required; in addition, women need to feel more comfortable to breastfeed in public. Another example related to the NHS food scan app which, it was felt, encouraged the swapping of one “*ultra-processed food*” [P4] for another – once again, not providing the full context to facilitate a healthy diet.

3.2.3.3 Making every contact count

There was discussion about the need to make all contacts with parents/expectant parents count, using opportunities to promote a healthy diet and nutrition; however, health professionals need the knowledge and skills to be able to do this effectively; one participant [P8] had written a question and answer section, in a health visitor journal, on an annual basis, relating to diet and nutrition in pregnancy and post-pregnancy – the specific aim being to update this group of professionals. Another participant [P11] had been involved in the training of health visitors so that they could disseminate their learning:

“So, we’ve trained, with the last count, around 300 health visitors who are champions for healthy weight and nutrition and they’re provided with initially some champion training which provides them with six modules around healthy weight and nutrition, starting pre-conceptually right through to how to support a child and family where there’s overweight obesity. So, it goes through healthy eating during pregnancy, pre-conceptually pregnancy, 0-1, early years 1-4 and then strategies around overweight obesity and, then, those champions cascade those resources to their workforce and we’ve been fortunate to have funding from the AIM Foundation to continue that work... We also do a quarterly newsletter on everything to do with healthy weight and nutrition. We link in with the Obesity Health Alliance and First Steps Nutrition to provide the content for that, which has been really well received, and that goes out to all the champions and those who have now attended updates this year...So it depends on us having core funding to keep this moving on.” [P11]

However, the point was made that many of the health professional contact points have been lost with, for example:

“No contact particularly for introducing solid food in England and you haven’t got consistency of a health visitor really anymore, so you’d often be going to do one thing and it’s a bit tagged on to the other reason for your visit and then it would depend on the knowledge of the health visitor, nursery nurse, whoever it is delivering that session.” [P9]

“The ante-natal contact, although mandated, is one of the lowest uptake contacts....if health visitors are going to have influence antenatally and pre-conceptually....there’s a big gap. There’s not been any training at all...health visitors could really have a massive role particularly on the pre-conceptual nutrition, because they’re the people often seeing people between babies.” [P11]

Not having contact with professionals, such as health visitors, meant that there were missed opportunities to providing nutritional advice; a reoccurring example related to portion size as it was felt that there was much misunderstanding about this with ‘extra-large’ versions of many products being readily available.

Other factors were raised such as a need for education about a healthy diet to begin in schools:

“I did quite a bit of work with young people on another project and actually the young people said they wanted to learn about food younger so they would be better parents. That was a project was focusing on preparation for parenthood and that came out loud and clear that they didn’t feel prepared. They weren’t prepared at school.” [P11]

3.3 Summary of findings from the professionals' focus groups and interviews

- 12 professionals, who represented a range of organisations across the UK, participated in the data collection providing a diversity of experiences and backgrounds.
- Three key themes emerged following the data analysis:
 - *Perceived facilitators of a healthy diet*
 - *Perceived barriers to a healthy diet*
 - *The way forward*
- Having knowledge and information was viewed as a key facilitator to a healthy diet. The participants felt that expectant parents/parents needed to understand what a healthy diet was; without this information, it would be difficult for them to eat nutritiously. Accessing relevant information could be challenging for a range of reasons (such as the lack of readily available engaging resources). Parents need consistent and accurate information from reliable and trustworthy sources; however, conflicting advice and mixed messages can be delivered (both from health professionals and wider sources).
- A range of barriers to healthy eating were identified. Most notably, the time required to purchase, prepare, and cook food, especially when lives were busy; this made convenience foods and ready meals more appealing. Affordability in terms of having the financial wherewithal to make healthy food choices and be able to cook it was raised as a key issue. Societal influences meant that there tended to be a stronger focus on western diets, although professionals (such as those working in foodbanks) made every effort to remedy this. It was noted that many expectant parents/parents had not planned their pregnancy in advance, therefore, a healthy diet did not tend to be a key consideration in the pre-conception period; once pregnant, other factors could impact on healthy eating such as nausea and sickness.
- In terms of the way forward, the participants identified the need for policy development that was implemented in a timely manner – this primarily related to financial support. It was recognised that the provision of resources that support expectant parents/parents to make healthy dietary choices can be inconsistent across geographical areas. Finally, but most importantly, health professionals, such as health visitors, should be appropriately educated themselves so that they can maximise opportunities when they have contact with expectant parents/parents so that relevant dietary advice can be provided.

3.4 Findings from the focus groups with parents

Section 3.3 presents the four themes that emerged from the five focus groups with the 19 parents:

- *Seeking information*
- *Accessibility to healthy food*
- *Nutritional needs during pre-conception and pregnancy*
- *What would help expectant parents/parents*

Each of the themes has sub-themes and these are each presented in turn. Initially, further details of participants are provided in Table 3.2 – this includes the Index of Multiple deprivation; however, it should be noted that these figures are calculated differently for each nation (for further details, please see: Ministry of Housing, Communities and Local Government, 2019; Northern Ireland Statistics and Research Agency, 2022; Welsh Government, 2022; National Services Scotland, 2022); therefore it is not possible to do a formal comparison between them. The FAS score is based on the details provided in Table 3.3, which has been adapted from the work by Currie et al (2004).

<ul style="list-style-type: none">• Does your household have a car? Response categories: No = 0; yes = 1; Yes, two or more = 2• Does your household have a computer/laptop/electronic tablet? Response categories: None = 0; one = 1; two - three = 2; more than three = 3• How many bedrooms does your home have? Response categories: None - one = 0; two - three = 1; more than three = 2• Have you had a holiday in the last 12 months? Response categories: No = 0; yes = 1

Table 3.3: Calculation of the Family Affluence Scale score, adapted from Currie et al (2004)

Table 3.4 summarises the participants' demographic data; all participants were female.

Participant [Pa] Identifier – all female	Ethnicity	Age (years)	Nation	IMD	Occupation [as described by participant]	Partner's Occupation	No. of adults	No. of children and ages	Current pregnancy & No. of weeks	Planning pregnancy	FAS Score
1	White British	35-44	England	10	Consultant: Arts & culture	Electrician	2	1: 4 weeks	No	Yes	6
2	White British	35-44	Ireland	365/890	Holistic therapist	Holistic therapist	2	3: 1, 13, 15, 18 years	No	Yes	7
3	White British	25-34	England	4	PR content director	Handyman	3	1: 3 months	No	No	6
4	Asian or Asian British	35-44	England	3	Accountancy	Accountancy	2	1: 4 months	No	Yes	4
5	White British	35-44	Wales	7	Not specified	Not specified	2	1: 15 months	Yes: 13	No	7
6	White British	25-34	Ireland	872/890	Breastfeeding support worker	Software engineer	2	2: 3, 5 years	Yes: 27	No	6
7	White British	25-34	Wales	9	Housing officer	Marketing manager	2	2: 4 years; 4 months	No	No	8
8	White British	25-34	Wales	9	Teacher	Personal trainer	2	1: 5 months	No	No	4
9	White Irish	35-44	Ireland	780/890	Staff nurse	Mechanical engineer	5	3: 2, 4 years; 5 months	No	Yes	8
10	White British	25-34	Scotland	5	Primary teacher	Project manager	4	2: 3 years; 3 weeks	No	No	4
11	White British	25-34	Scotland	5	Energy analyst	Agricultural engineer	2	2: 3 years; 5 months	No	No	6
12	White British	25-34	Wales	9	Senior marketing manager	British army officer	2	2: 2 years; 6 weeks	No	No	6
13	White British	18-24	England	10	Nursery assistant	Business development manager	2	0	Yes: 28	No	6
14	White British	25-34	England	10	Team manager	Quantity surveyor	2	0	No	Yes	6
15	White British	18-24	Scotland	2	Not specified	Not specified	2	1: 6 months	No	Yes	3
16	White British	25-34	Ireland	860/890	Charity service manager	Specialist instructor guide dogs	2	1: 5.5 months	No	Yes	6
17	White British	18-24	England	8	Fraud investigator	Yard man	2	2: 9 weeks [twins]	No	No	6
18	White Irish	35-44	Ireland	375/890	Social worker	Personal trainer	2	2: 15 months; 4 weeks	No	Yes	3
19	White British	35-44	Scotland	3	Retail manager	Retail assistant manager	2	2: 12 years; 3 months	No	No	4

Table 3.2 Details of the parents who participated in the focus groups

Demographic data	Parents (n and %)
Age, years	
18-24	3 (15.7)
24-34	9 (60.0)
35-44	7 (36.8)
Ethnicity	
White (British)	16 (5.2)
White (Irish)	2 (10.5)
Asian or Asian British	1 (5.3)
Country	
England	6 (31.6)
Wales	4 (21.1)
Scotland	4 (21.1)
Northern Ireland	5 (26.3)
Child < 6 months old, yes	15 (78.9)
Trying to conceive, yes	3 (15.7)
Pregnant, yes	3 (15.7)
Number of children	
0	2 (10.5)
1	6 (31.6)
2+	11 (57.9)
Number of adults (mean, SD)	2.3 (0.8)

Table 3.4: Demography of parent participants (n=19)*

[*19/19 (100.0%) responded 'yes' to 'does your household have a car?', 18/19 (94.7%) responded 'yes' to 'does your household have a computer/laptop/electronic tablet?']

3.4.1 Theme 1: Seeking information

This theme revealed two key areas: *Credible sources*; *Health professionals as a source of information*. These are reported below.

3.4.1.1 Credible sources

There was much discussion about how to acquire knowledge relating to a healthy diet and how to seek it from credible sources; parents frequently took it on themselves to do this, particularly when there was a specific focus or need, for example, one participant had been a vegetarian for 12 years and was now wanting to have a totally plant-based diet so she had actively sought relevant information in relation to this:

"I think that you do have to go out and do a fair amount of research yourself, probably with any diet, but especially with plant-based." [Pa1]

Other participants also had a desire to seek information that was specific to their needs:

"I'm a real researcher, and I like to find out loads of stuff, and read loads of stuff. Obviously, I had the time. We were in lockdown. I was working from home, and

I don't have any other children. Two dogs that take up time, but I had the time to read and learn, so I probably ate better in pregnancy than I even had done since I've had M, because I saw - not anxious - but conscious of eating healthy while I was pregnant." [Pa16]

One of the reasons that participants searched for their own information was because they felt that much of what was presented to them was rather dated, conflicting and not recently published, leaving them wondering if it was still relevant, for example:

"The NHS are encouraging people to have a vegetarian, or flexitarian diet. So, it's like match it all up, you know? Just create some sort of resources that accept that people for cultural reasons, you know, there are all sorts of reasons why people eat slightly differently. Start with that, rather than referring people to stuff that does feel quite out of date." [Pa1]

"To me, I found it very biased. There wasn't actual nutrition information and studies going in there. It seems like it was the same leaflet that has been regurgitated for years." [Pa 2]

"My midwife... I think I asked her questions like can I exercise, and she was like, no, just walking and obviously the NHS website says things like you can do the exercise that you normally do...I was like but the website says I can, so yes I found sometimes the midwife's advice is out of date." [Pa11]

"Some stuff, even with the health visitor, they're telling me stuff and I'm thinking 'That's factually incorrect.' I know what's factually incorrect. I've done my studies with it." [Pa2]

"So, I don't know, it kind of felt like maybe sometimes the guidance was a bit outdated." [Pa3]

This, therefore, was another reason why expectant parents/parents felt that they needed to source their own information:

Like you're quite used to thinking, "I'm going to have to go and get informed about this," rather than just that, "I can pick up some information that someone else has just created for me." [Pa1]

Several participants commented on the benefits and trustworthiness of NHS sites and thought that they were:

"The best and most reliable source of information" [Pa11]

“The NHS website is just my go to and there is... part of the NHS website called Start for Life... I get Start for Life emails as well every time my baby is...at this stage every week and then every month after that.” [Pa12]

“The only thing I’ve seen is on the national NHS website. It’s really hard to know what is bone fide advice, and what is just sometimes American random comments about what helped them. So, I think the only thing I’ve necessarily looked at is the national NHS one that is quite generic about healthy eating, to be honest. I wouldn’t say it’s that great.” [Pa14]

However, other participants felt that the NHS sites were not always user-friendly and that messages could be provided in a clearer and more accessible manner:

“Some people find the NHS guidelines in terms of what you can and can’t eat quite confusing...So, I think like the key is just keeping it simple and straightforward and making some really easy suggestions for people to follow.” [Pa3]

“I just found the NHS guidelines a bit... yeah, some things were quite confusing, you have to google and click on about five websites to find what you should and shouldn’t have. That was a bit painful.” [Pa4]

“I think I very much found that it was hard to find information. So if there was sort of, you know, like I would constantly google, ‘Can I eat this whilst pregnant?’ and you would get the same NHS website pop up that gives you the whole, ‘No, you can’t this, you can’t eat that’ and, you know, I think if there was an easier way of finding information about what could be done rather than what not to do, that would be helpful.” [Pa8]

3.4.1.2 Health professionals as a source of information

Whilst there was contact with health professionals during the pre-conception, and particularly pregnancy, periods it was thought that the opportunities that these contacts presented were not fully captured or used to discuss a healthy and nutritious diet:

“I know when I initially went to the doctors about being referred because of the length of time that we’d been trying [to conceive], they just spoke about alcohol intake, and changing habits like that. But not really a lot of other advice otherwise, really.” [Pa14]

“I found when I was pregnant, at your maternity appointments and things, they ask you, ‘How is eating going?’ I would say, ‘I’m a vegetarian.’ They would go, ‘Oh, right, okay. They would write it down.’ But then, that was it.” [Pa16]

The advice that was provided primarily focussed on weight, the taking of multivitamins and the foods that should be avoided; more general or individually specific support was not perceived to be provided:

“Yes, bar the kind of... specific like obviously no drinking or smoking, there was no kind of specific diet related commentary.” [Pa10]

“Yeah, I think a lot of the information is more about what to avoid and then maybe about the specific sort of supplements that you may need as opposed to meals and foods that are actually good for you. [Pa6]

“My midwife just looked at me and she was, like, oh yes, you’re not overweight, like you’re fine basically.” [Pa11]

“I would just say when I went to the midwife appointments, there wasn’t really any comment much about diet. I think because my weight was within a healthy BMI and all the rest of it, I was quite a middle of the road weight beforehand. They didn’t really comment much on my diet at all.” [Pa19]

“I just remember being told what not to eat, and I was taking my own vitamins anyway... That was, kind of, it. Yes, just, “Drink loads of water, and don’t eat this stuff.” I think that’s all that was really discussed about diet that I can remember, anyway.” [Pa15]

“When you get your 12-week check, you get advice. “Are you taking folic acid?” Then, as well, the consultant. I had low iron levels as well, and just discussed taking iron supplements. I wasn’t given any iron supplements. I was, sort of, told to “Eat red meat,” and blah-blah-blah. My notes say I’m vegetarian. I was just like, “Yes, okay.” I just, kind of, nodded at him. That was the only real advice I had regarding eating habits.” [Pa18]

There was a feeling from participants that midwives were not nutritionally qualified to provide healthy eating advice and that this could be a reason why there was little given; the information that was provided, tended to be generic in nature. One participant, however, had a different experience because she was identified as being overweight - her referral to an appropriate programme really helped her to think about her diet and to lose weight:

“Well, I was identified obviously as being overweight in my second pregnancy and I was put into a programme called Way to Healthy Pregnancy where I had a dietician and met with them, this is pre-Covid, this was my second pregnancy, and so I had a lot of support in my second pregnancy and I actually ended up coming out having lost weight at the end,

once the baby was born.” [Pa9]

Despite this, the same participant went on to say that during her third pregnancy, she just “*wasn’t at a place*” [Pa9] to access the support.

Expectant parents also faced challenges, in terms of their personal lives, as family and personal contacts would endorse an unhealthy diet:

“I think there is a lot of contradictory information....I lost track of the amount of people that were like, “You can eat what you want at the moment. Just have whatever,” and were encouraging you to have cake, or that kind of thing. Diet is a funny one, isn’t it? Because it’s like we all know, really, what we should eat, but there’s this sense of, ‘Go for it on the naughty foods when you’re pregnant. It doesn’t matter.’...It’s like, ‘Well, it does, doesn’t it? Because I’m trying to make my body efficient for what’s going on here.’” [Pa1]

In summary, the participants felt that relevant, contemporaneous, evidence-based information was not being presented to them; in addition, there was a lack of bespoke and individual advice.

3.4.2 Theme 2: Accessibility to healthy food

This theme revealed three important areas: *Online shopping; Convenience; Household budget* – each will be presented in turn.

3.4.2.1 Online shopping

The parents discussed how the COVID-19 pandemic had had an impact on their accessibility to food so there had been a stronger reliance on online services. However, the preference for online shopping was not specifically associated with COVID-19, but was related to ease of accessibility:

“Before I was pregnant, we would have just picked up stuff during the week. Since I was pregnant, and since having a baby, I do Tesco Click+Collect pretty much once a week to do the main shop, if you know what I mean. Then we just pick up fresh veg, or whatever, throughout the week. But the Click+Collect, I’m breastfeeding as well, and it’s just so much easier to have it all done and know what you need and plan a little bit.” [Pa16]

“We do online now every week. So, we tend to plan out our meals for the week and then order what we need for that.” [Pa7]

“I mean it’s rare I’m actually in a supermarket.” [Pa10]

“We do it online, because it’s too hard to get both of the girls out of the house, and then having enough space in the boot for a double buggy, and all of the shopping. He [partner] doesn’t really like doing online shopping. He doesn’t have the patience for it, so that’s my job. But, yes. I think I influence it mainly because I’ve been brought up having very healthy, home-cooked meals every single day. Whereas his family, he comes from a really big family, so they didn’t necessarily always have the time to make those type of meals for everyone.” [Pa17]

3.4.2.2 Convenience

The parents all had busy lives, so convenience was a key factor in terms of food preparation; this did not, however, mean that there was a reliance on ready meals, rather the focus was on food that was quick to prepare:

“Is it quick to cook or can it go in the slow cooker? So that’s...I suppose that’s my top priorities when I’m buying food.” [Pa12]

“Convenience is a big thing. How quickly can it be cooked, preparation time, does it need to be chopped or peeled? You know, that’s kind of like my prerequisites.” [Pa10]

“I buy a lot of frozen veg, my freezer is full of frozen veg so that helps.” [Pa12]

“I like all my meals to take less than half an hour to cook.” [Pa11]

However, the tiredness associated with pregnancy and a busy lifestyle meant that there was not always the inclination to cook from scratch and it was not always perceived as a priority:

“It’s a bit of a convenience thing at the end of the day. Definitely while I was pregnant, I was quite tired a lot of the time, didn’t want to cook, I was trying to get things back to work, my job is quite stressful, so having the kind of energy and the enthusiasm to cook something healthy and nutritious, I don’t always have that sort of feeling.” [Pa3]

“Probably in the runup to having the baby definitely convenience was a factor, especially working long hours and things. There was probably a bit more like takeaways and that sort of thing. Like Uber Eats sending emails with 25% off or whatever definitely makes it easier, just doing that.” [Pa4]

Several of the participants mentioned delivery services such as *Hello Fresh* as this meant that all the ingredients were included so there was a substantive convenience factor and it had also helped some families learn new cooking techniques; however, the meal could take longer to cook, it was an expensive way of eating a healthier diet and was therefore not sustainable in the longer term:

“Every four weeks, I get Hello Fresh as well, which to be honest takes me longer to cook a Hello Fresh meal than any other food that I make, but it’s all measured out for me and ready to go, so I guess the convenience of that helps as well.” [Pa12]

“I’ve got a friend who has got four children, and she gets the Gousto boxes through the post. She makes really lovely meals for them.” [Pa19]

“It’s not sustainable, because it’s so expensive, but we did it for a few weeks after we had [name of child removed], the Hello Fresh thing. Especially as a veggie, the fresh veg, everything is mapped out for you. It’s probably where my husband learnt to make something more than beans on toast. Not that there’s anything wrong with beans on toast sometimes. It’s great. But that actually really helped us learn how to cook. We still make some of the meals, we just buy the stuff instead of ordering it through Hello Fresh.” [Pa16]

The need for convenience was also influenced by family commitments and responsibilities. In many households, the mother took the lead in terms of running the household and preparing food; therefore, if she was also ‘juggling’ childcare and work, there was a need for meals to be planned and to be as quick to prepare and as convenient as possible. In addition, mothers talked about the “*mental load*” that this caused:

“I’m 100% responsible for all of the food shopping and cooking and everything. My husband doesn’t like cooking. I’ve got a nine-week meal plan I’ve created just to take all the mental load out of it and the shopping list each week.” [Pa11]

“The mothers I speak to, yes it’s the mental load is definitely what they struggle with, like you know one of my friends at four o’clock she’ll message me going, oh God, what’s for tea, like... and then she’ll say I’ve got this, this, this in the fridge, what shall I make because she knows I like cooking, so I suggest things. So, yes, it’s just that thinking of everything.” [Pa17]

“I’m going to risk it and talk about stereotypes and hopefully not sound too sexist, but it would really help me if my husband did more... I guess it’s this whole thing about the mental load, like I think about food, I plan food, I buy food,

I make food, I serve food and I throw away food and he doesn't really get involved in that process. If I... like, yesterday, if I say please can you peel the potatoes or can you chop that veg or can you follow these instructions and make this meal, he can do it but I'm the one who's leading that whole conversation and I think from my experience, I think women, particularly mothers, will probably say they're in the same position as me, so culturally if the men in our lives could do more that would also be a big help." [Pa12]

It was very clear that mothers felt that there were substantive demands placed on them in terms of providing food for the family; whilst there was a desire for it to be healthy, the need and time to prepare it was potentially an added strain.

3.4.2.3 Household budget

Another factor that impacted on the accessibility of a healthy diet was the household budget. The participants were from a range of different backgrounds (please see Table 3.2) with some being more affluent than others. Whilst there were a small number of comments relating to the fact that finances were not a concern (for example: *"we're lucky that I don't need to worry about money"* [Pa11]), the majority spoke about their awareness of the cost of healthier products and the impact of this; sometimes decisions needed to be made in terms of what was feasible within the household budget:

"My main shop is Aldi, so we go to that once a week. In terms of sort of affordability, Aldi is great." [Pa3]

"I feel like if you want to eat healthily it certainly racks up the grocery bill. You know, the more sort of fresh fruit and veg you're adding, the more variety you're adding to your basket the more your grocery shop is going to cost." [Pa10]

"We shop at Tesco at the start of the month, and then, buy meat, veggies, make a lot of meals. Then by the end of the month, I'm shopping in Aldi, and we live off frozen chicken nuggets and chips for a week, sort of thing. It's far cheaper." [Pa15]

I would say it's just affording fresh vegetables, and stuff like that, because we find that you put them in the fridge, and then they go off so quickly. So, we tend to buy the big bags of frozen veg and stuff from Farmfoods, because it's so much cheaper. Although I would rather eat fresh vegetables, it's a compromise on, "Well, we're still getting the good food, but it lasts longer. It's there whenever you need it." If my husband is making chilli, or Bolognese, or anything like that, he has always got the sliced onion and peppers...It saves forgetting things as well. [Pa19]

“It’s a lot more expensive trying to plan eating healthy food than the cheaper options, stuff that you can just chuck in the freezer. You know, packet of pasta sauces, that sort of thing is definitely cheaper.” [Pa15]

“It is accessible to get your healthier options, but the price difference is quite a bit. On weeks that we do plan fresher recipes and things like that, compared to weeks where we have gone for more freezer food. The price difference is quite a big thing. Then you look at it and you think, “Oh, my God. That’s quite a lot of money difference.” Obviously, when you’ve got a baby on the way and stuff, and you are starting to try and save with obviously maternity pay not being a lot. You think, “Am I going to just sacrifice having less healthy meals for the money?” Which is bad, really, because, obviously, you want to eat healthy, especially when you’re pregnant. But sometimes, it’s just not possible.” [Pa13]

Parents could feel tired, so they did not always have the desire or time to be more creative with their cooking. Busy lives meant that compromises needed to be made; comments were made about, for example, *“doing a grocery shop at two in the morning”* [Pa10] as that was the only available opportunity.

One parent felt that families on lower budgets had more support than those who were earning, but *“when you’re working and stuff like that, they just assume that you’re okay, and that you’ll work it out”* [Pa19]. The inference being that all parents needed support, but it just might be a different type that is required.

3.4.3 Theme 3: Nutritional needs during pre-conception and pregnancy

This theme focussed on three areas: *Planning for pregnancy; Healthy eating during pregnancy; Social influences* – these are now considered.

3.4.3.1 Planning for pregnancy

Similar to the views expressed by the professionals, many of the parents said that they had not specifically planned their pregnancy so had therefore not considered a healthy diet prior to conception:

“I think the difficulty with the pre-conception side of it is that because I didn’t have issues conceiving, it’s not something I would go and look for the information.” [Pa19]

“We were very lucky to kind of get pregnant straight away. So, it wasn’t something I really had much time to sort of think about or plan too much.” [Pa6]

“We didn’t really have a pre-conception period. We were lucky enough that we fell pregnant very, very quickly every time.” [Pa11]

“I suppose, see all three of my pregnancies were surprises, so pre-conception I was more, not really thinking about this sort of thing.” [Pa9]

Despite this, there were a small number of participants who had considered their pre-conceptual diet:

“I think, for me, I’m obviously at the stage where I’m just trying to be a lot healthier, because I’m trying to conceive. So, the focus is just being as healthy as much as possible.” [Pa14]

However, seeking out advice in terms of a healthy diet was not always easy:

“Oh yes, Google’s a minefield, isn’t it? If you kind of search pre-conception diets, there’s lots of weird stuff out there.” [Pa12]

“Online, there are so many articles of what’s good to eat, what’s not good to eat. They’re so varied as well, that then you think, “What one is correct?” It is a bit of a minefield.” [Pa13]

3.4.3.2 Healthy eating during pregnancy

There was much more awareness of the need for a healthy diet during pregnancy than in the pre-conception period and more thought was given to this:

“So, it was only really once I was pregnant that I started thinking more about diet choices, and stuff.” [Pa19]

“I try and include as much fruit and vegetable as possible...that’s, like, one of my priorities when I’m doing online shopping, but in terms of any sort of processed food it kind of falls to the wayside after the fruit and veg, if that makes sense. So usually, it would be a mix of vegetables with whatever we’re having, to cancel out kind of the unhealthy portion of the meal, if that makes sense.” [Pa10]

“I really like fruit and veg, and I always have done. I always eat salads, and stuff like that...I always make sure we do have a fridge full of fruit and vegetables. We do still get the unhealthy things. We’ll get a few packets of biscuits, and some crisps, and stuff like that.” [Pa17]

There was discussion about dietary supplements, especially iron (perhaps because this was an aspect of nutrition that tended to be considered antenatally by healthcare professionals) and how the intake of this could be enhanced, for example:

“I repeatedly had really, really low iron levels and low blood platelets. So, I think, for me, that was something that forced me to eat even healthier than I was, because I wanted ways to try and keep my iron levels up, and to keep my energy levels.” [Pa17]

“During pregnancy I took a lot of vitamins, like calcium, iron supplements, stuff like that.” [Pa3]

The problem that most participants identified was that whilst they were aware of the benefits of a healthy diet during pregnancy, there were other factors that could intervene – in particular, the symptoms that they were experiencing, such as nausea and vomiting as well as an aversion for some foods and an attraction to others:

“I suffered in both my pregnancies with pretty bad sickness and nausea, especially in the first 20 weeks or so. All I wanted was just plain white foods, really struggled to get that balanced diet. [Pa7]

“‘Oh, God. I wasn’t expecting...’ I thought I’d be all zen and be eating 20 vegetables at every meal, or whatever, and instead I was like, ‘Oh, no. I don’t want to go in the kitchen’.” [Pa1]

“So, I had hyperemesis gravidarum, so just constant sickness from week five to week 38...everybody around me was sort of saying, ‘You need to be eating this because you need to make sure you’re getting your iron and taking your folic acid’ but I literally just could barely keep anything down. So, my pregnancy diet consisted of Mini Cheddars and the Mini Milk ice lollies.” [Pa8]

“And then when I got pregnant with my third that sort of was skewed a wee bit because there were certain things that my body just kind of had a bit of an aversion to and my body was craving really carby type things, like plain sort of brown sort of foods.” [Pa6]

“Unfortunately, I really craved everything sweet, doughnuts, biscuits, cakes, which was really annoying, but ultimately, no, my diet didn’t really change, it just stayed the same as before and as now, really, except I probably ate more.” [Pa12]

“Being pregnant, I felt that I was able to eat little and often, so I was needing to eat every few hours...it was little things that I could pick up and

snack...so, again, that sabotaged the healthy eating a bit, because it was much easier for those things to be small biscuits, or sweeties and things like that at the till, just something just to give me that little bit of nourishment to keep the sick feelings at bay.” [Pa19]

However, it was acknowledged that as pregnancy progresses, for most women, “*you can eat more, and you’re not feeling nauseous anymore*” [Pa13]. In addition, it was felt that a healthy diet in a first pregnancy was easier to achieve than subsequent ones; this was because other factors played a part, not least the demands of children:

“I found the first time around it was a lot easier, fitter and healthier, no other commitments as such. A lot easier I think to have the time to exercise and eat healthy, and then obviously when I conceived this one it was in the middle of the pandemic, and I’m a keyworker as well, busy, had a child to look after, it was a little bit harder.” [Pa7]

“And then the second pregnancy I found it a bit harder to eat healthily because I was tired and I was working full time and had the baby, one-year-old. I had them quite close together. So that was tough. And then the third pregnancy, I sort of gave up trying to eat healthily because I was exhausted, I think, a lot of the time with the other two. I was so busy with them, and my husband was incredibly busy with work at the time, and it was just really, really difficult this last time to even get motivated, if that makes sense.” [Pa9]

The participants felt that nutritional support and advice from professionals was lacking and that this was not given overt consideration, unless there was a substantive problem (such as obesity):

“Particularly for women that are overweight, I think there’s maybe quite a set way in which it’s dealt with” [Pa3]

“But in general, I think diet is completely overlooked as one of the main ways that you can be healthier.” [Pa1]

“I had no kind of advice from anyone.” [Pa10]

“I wouldn’t have known who to go to. In my pregnancy, as I say, there was no talk - I don’t remember any talk - of nutrition, or where to go for nutritional advice in my first pregnancy.” [Pa2]

“Just, I think this time around the midwife just said, ‘I saw you eat really healthily last time’ I didn’t have much, because of the pandemic, one-to-one with the midwife. Just to have that kind of, you know, that voice from a healthcare professional. There were no leaflets or anything, I think they put them up in the

room when you're waiting, but there's no sort of actual information booklet on what sort of meals you should be eating or what you should be having. Because I think you can just, when you're tired, give in to, you know, give in to the burger." [Pa5]

One participant had felt that the advice provided by the NHS was lacking, so she sought a private consultation and was amazed at the different and more detailed level of information. Others found the NHS *"guidance in terms of food to avoid during pregnancy very easy to follow"*, but *"it didn't necessarily make complete sense to me. Like the science behind it didn't make sense."* [Pa8].

3.4.3.3 Social influences

The participants mentioned social influences that could impact on their diet – this included advertising, their families, friends as well as the shopping offers that they were exposed to, for example:

"I think just on how people shop and what we're sold on TV and in shops and convenience and all that definitely is affecting how people are eating...Doing my shopping last night and all the deals that come up, you know if you click on sort of like Price Match This Week, or any discounted, it's all the kind of sweets and crisps that come up, so maybe that's targeted marketing for me, I don't know. Yes, everything's marketed as... it's all peel away the foil and put in the oven stuff that seems to come up first." [Pa10]

"My father-in-law came to stay and offered me wine every meal and I was, like, no, no I'm okay thanks." [Pa8]

When the television advertising was focussed on a healthier dietary approach, it was not always felt to be appropriate:

"You see adverts on TV at the minute. There's a really awful advert on Northern Irish TV at the minute to do with portion control and weight loss." [Pa16]

The other key influencer was the availability of time and the impact that this had on the provision of a healthy diet:

"Time's a big factor." [Pa10]

"So, I think definitely for someone like myself. I think with me, it probably would be a time issue. I haven't got the time to sit down and learn about recipes and

things, but if I had someone, was part of an antenatal class, or a group, or something where they were showing you healthy meals, and how to cook this, and how to budget right for your family to get the healthy meals in, I definitely think it would be a great initiative. For me, it's all about convenience and what's quick and easy to make. For me, that's my quick meals, which is terrible, but truth." [Pa18]

3.4.4 Theme 4: What would help expectant parents/parents

The parents identified three areas relating to the potential enhancement of diet during the pre-conception and pregnancy period: *The government; Nutritional advice; A societal approach.*

3.4.4.1 The government

Firstly, the participants felt that the government had a responsibility to take further action; for example, suggestions included investment in the healthcare workforce, education and making the healthier food choices the easier ones (whether that be through taxation, labelling or the subsidisation of nutritious products):

"But definitely up to the government in a lot of aspects. And the tax on sugar is good....I do think, you know, with the new sort of traffic-light system coming in...so all the ingredients need to be on everything, that's very good, and the nutritional value needs to be on it...I think if they make it so that the food that is bad for you is harder to access and make, you know, the fruit and veg easier to access, people, and then maybe a lot more education about how to cook it properly and quickly and easy. But I think the government needs to definitely invest from the bottom up in the education...Not just for people that are in a high-risk group. It needs to be universal, that everyone has access to help from a dietician and what not, and one on one... the government has a responsibility to ensure that there's enough in the workforce to offer this sort of support, you know, directly to pre-pregnant and pregnant women..." [Pa9]

"But I do think that the government do have, you know, they have a role in kind of perhaps encouraging people to, you know, eat healthier or make better choices for them... I think as well if like healthier foods were cheaper to grab on the go. So, like I think, you know, the likes of a cheeseburger at McDonalds is 99p and then you go in somewhere to grab a salad for a meal deal and it's £3. I think sometimes the cost of food as well." [Pa8]

Another key area that was identified in terms of the government committing support to families was the food voucher scheme; it was felt that this was a good initiative that needed further and on-going investment:

“Healthy food and veg. So, I reckon the vouchers would be the top priority, if you were making that decision.” [Pa15]

“But I think it goes back to what Marcus Rashford was saying in saying that the children should be the ones. It’s not their fault if you don’t have the money to pay for the healthy food, that shouldn’t negatively impact your children. So, I think the vouchers should be more readily available, because if it’s providing the healthy food for your children, then that’s beneficial for them. That should be something that is encouraged, rather than saying, ‘You earn too much money, so you’re not entitled to them.’” [Pa17]

3.4.4.2 Nutritional advice

The second point that was raised for this theme was that there needed to be more nutritional support and advice available, especially during pregnancy:

“But I do think at a basic level, nutritionists should be part of the package of support that comes with pregnancy.” [Pa1]

“Maybe GPs, why not have a nutritionist there that anybody can go and see at any time.” [Pa2]

“Something like access to a nutritionist that you could work with for one session, even if it’s just half an hour, whether that’s somebody based in your local health centre or, you know, a national service where it’s online, since this is becoming a much more acceptable form of holding meetings and stuff, I think it would be very welcome.” [Pa3]

However, the suggested support was not solely focussed on nutritionists themselves, but the participants advocated for a point of contact with other health professionals who they could seek advice from, this was primarily face-to-face strategies, but also included, for example the development of relevant ‘apps’:

“To be able to turn to a professional, even if it’s just a half-an-hour app[ointment] and be able to ask some of those questions and get some really, you know, get professional advice and just set you up for the following few months. Because it’s such an important period of your life and you’ve got someone else, you know, depending on you as well and they’re kind of the future of our country, so sounds like a good investment to me.” [Pa3]

“Do you know, even the way they have the antenatal workshops and breastfeeding workshops and things like that, one around nutrition would be really good in those early stages. You know, that are even open to pre-conception would be great as well, if maybe like dieticians or if dietitians

could be employed within the maternity services, you know, it would be really good as well. Because I think...that long-term that would absolutely save the NHS money because we know the healthier we are, obviously that's going to pay off long term, you know, to prevent certain illnesses in the future.” [Pa6]

“I actually think built into the antenatal classes would be great if there was a healthy eating course, or something, and if they also had a specific bit for vegetarians.” [Pa18]

“Practical advice from your midwife, or healthcare provider, whoever it is, when it's pre or once you're pregnant. A little cookbook, a few ingredient meals that are cheap, healthy and easy to make, even something like the little photo guides and stuff like that. Just really easy, cheap and practical...Or something like an app, a bit like the 'Couch to 5K' app. Something like that for pregnancy where you were learning about recipes and how to cook healthy, or how to eat healthy, or how to just look after yourself, actually, would be really useful. A lot of the apps tracking your pregnancy are quite Americanised. You know, “Your baby is a pumpkin this week,” or whatever. That's all well and good, but it would be great to have an NHS, or something, version that taught you practical elements as well.” [Pa16]

3.4.4.3 A societal approach

The parents echoed the professionals' views insomuch as there was a belief that healthy eating should not be confined to pre-conception and pregnancy, but that children needed to be appropriately educated from an early stage so that the next generation would benefit:

“So, having that available from, again, schools, right from the beginning where we can teach our children that food is healthcare. Starting from the very beginning would be great...that would be the thing that I'd say food is healthcare.” [Pa2]

“Yes, food technology we called it at school....School can't provide all the ingredients can they and they can't expect children to bring in the ingredients every week, like for the parents to pay for the ingredients every week, so I don't know if that's a barrier, but yes definitely, I think, learning to cook healthy, nutritious cheap meals is definitely, I think, lacking.” [Pa11]

In addition to school-based education, healthy eating messages and support could be provided via different avenues, such as Sure Start Centres, baby boxes and supermarkets; however, it was recognised that this needed financial support to

facilitate a consistent approach in all areas of the country in order to avoid a 'post code' lottery situation.

3.5 Summary of findings from the parents' focus groups

- 19 parents from across the four nations of the UK took part in five different focus groups. Their demographic background was varied (please refer to Table 3.2), but there were four core themes that emerged following data analysis:
 - *Seeking information*
 - *Accessibility to healthy food*
 - *Nutritional needs during pre-conception and pregnancy*
 - *What would help expectant parents/parents*
- The participants identified a need to acquire information that was relevant to their needs, but they found that there could be inconsistency in terms of the health messages portrayed as well as a lack of individual, bespoke advice.
- Accessibility to healthy food could be restricted for a range of reasons, not least affordability with parents needing to plan their purchases; however, it was also clearly identified that expectant parents/parents (particularly when they already have a child[ren]) could be less inclined to buy food that required substantive preparation – to help address this, strategies were used to maximise their available time, these included: Online grocery shopping, stocking the freezer and planning family menus that required less preparation.
- In the main, parents had not overtly considered their diet in the pre-conception period (although there were a small number of exceptions to this); whilst there was a much greater awareness of the need to eat healthily in pregnancy, this could be curtailed because of nausea, food cravings as well as general tiredness.
- In terms of suggestions for facilitating a healthier diet during pre-conception and pregnancy, the participants felt that the government could take more action in terms of direct financial support (in the form of, for example, food vouchers and the subsidisation of nutritious foods) and developing a workforce that enabled expectant parents/parents to receive appropriate dietary education and advice.

Section 4.0: Discussion and recommendations

4.1 Introduction

Using qualitative data collection approaches, this research study sought to provide insight and understanding into professionals and parent/expectant parents perceptions of diet and nutrition during pre-conception and pregnancy; interestingly there were substantive commonalities between the two groups. This concluding section discusses key findings and provides recommendations for future planning and action.

4.2 Discussion

This research study has revealed several key points; some, such as the need for further financial support, for example, in terms of wages and Universal credit, are not new and there are already campaigns afoot to lobby for these changes. Other areas, for example, the need to maximise the contact that health professionals have with expectant parents/parents, echo other initiatives including Make Every Contact Count [MECC] that aims to change health related behaviour by utilising *“the millions of day-to-day interactions that organisations and individuals have with other people to support them in making positive changes to their physical and mental health and wellbeing”* (Health Education England [HEE] 2020). NICE (2020) suggest that MECC is an evidence-based approach that enables the enhancement of the population’s health and wellbeing supporting them in terms of behaviour change. This is something that could be further embraced within a healthy diet context. However, it arguably requires appropriately educated practitioners who have the confidence to discuss nutrition in a sensitive and supportive manner.

The findings in this study revealed that there can be a lack of readily available evidence-based, clear information that is provided in an easily accessible and engaging manner. Consideration therefore needs to be given to how expectant

parents/parents prefer to receive advice and support; using strategies that they feel affinity with will mean that they are more likely to be positively responsive.

Participants commented that advice was frequently related to the negative aspects of dietary intake, for example, the foods that should be avoided. However, it has been suggested that this can lead to emphasis being placed on people to avoid illness instead of their ability to “*sustain and create health*” (Morgan and Ziglio, 2007: 18), intimating that people need to ‘fail’ before support is offered (an example of this, from our study, was given by a participant who was referred to a weight management programme because of her increased size). A more positive, asset-based approach would be to focus on people’s abilities and capabilities to identify solutions that are focussed on their needs, and which enhance self-esteem. In the longer term, this would potentially lead to a lower dependence on services but may be more labour intensive initially in terms of the support required. However, PHE and NHS England (2015) produced *A guide to community-centred approaches for health and wellbeing*, advocating support for this approach; the UK Health Security Agency (2022) now has a range of projects that have used asset-based approaches illustrated on their website – they highlight these as examples of good practice.

Whilst the focus of this study was the pre-conception and pregnancy period, the participants suggested that a life course approach to healthy eating should be advocated. This has been supported by PHE (2019b) in their document *Health matters: Prevention – a life course approach*; they suggest that this begins at pre-conception. Both the government and the professionals in this research are advocating similar strategies, yet there was a perception from the participants that this was not actually happening in practice. Therefore, there needs to be a strengthening of resources, as well as the supporting infrastructure to facilitate it; in the case of pre-conception and pregnancy, this could involve a range of practitioners (such as GPs, midwives, health visitors, nutritionists) as well as wider support that could include appropriate financial help and easier accessibility to healthy food products.

4.3 Recommendations

The findings from this study highlighted key recommendations:

- Clarity is needed in terms of what a healthy diet is, especially considering the diverse cultural population that the UK now has; expectant parents/parents need clear information about what comprises a healthy diet in this important stage of their lives.
- Expectant parents/parents are actively seeking information; therefore, this needs to be provided in a clear, consistent, and engaging manner that embraces a range of diets (in particular, vegetarianism, veganism as well as different UK cultural food products).
- Expectant parents/parents need access to practitioners who can provide both generic as well as individually focussed advice.
- Health professionals need to maximise every contact that they have with expectant parents/parents so that opportunities to discuss health and nutrition are taken advantage of.
- To support the above point, practitioners need to be appropriately educated so that they can provide relevant dietary information and/or make referrals to other agencies.
- A life course approach to healthy eating is advocated, particularly as parents do not always plan their pregnancy; this strategy will enable all sectors of society to benefit.
- There should be a stronger focus on a positive approach to healthy eating, rather than a deficit one that highlights the negative aspects of a poor diet.
- There needs to be appropriate governmental financial investment, and supporting policies, to facilitate the above recommendations, but to also to help those most in need.

Conclusion

The importance of eating a healthy diet in the pre-conception and pregnancy period has been well recognised. Achieving this, however, is not without its challenges – some of this is related to the individual person in terms of their ability and capability (both physically and emotionally) to prepare nutritious food at a time of their lives when there are additional stresses and strains. Despite this, the overriding challenges are related to affordability and the provision of professional advice that enables expectant parents/parents to gain information that has direct relevance to them, their family, and their needs. Without a good diet, the UK is in danger of having a future population who are more likely to develop a range of health problems that include malnutrition and obesity as well as the associated co-morbidities. There must be financial investment

to enable all sectors of society to access healthy and nutritious food so that our next generation has the best possible start in life.

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