

**“A very fun and messy journey”**  
**An evaluation of the HENRY**  
**Starting Solids Workshop and its**  
**impact upon complementary**  
**feeding practices**

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HENRY is a charity focussed on ensuring that babies and young children get the best possible start in life. They support families to make positive lifestyle changes, create healthier and happier home environments and build healthier communities. Over the past ten years they have supported thousands of families to transform family life for the better, including a focus on improved nutrition, emotional wellbeing, parenting skills, breastfeeding and getting more active. They work alongside health and early years practitioners and have collaborated with NHS trusts, local authorities and many other partners. Their website can be found at <https://www.henry.org.uk/> and their registered charity number is 1132581.

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## 1. Background

Supporting children to develop healthy eating habits for life is an important area of early health and development. Childhood overweight often tracks into adulthood where it can increase the risk of heart disease, cancers and diabetes.<sup>1</sup> Likewise, a nutrient poor diet in childhood has been linked to an increased risk of overweight<sup>2</sup>, lower academic achievement<sup>3</sup> and later poor health outcomes<sup>4</sup>. Eating behaviour and food preferences especially for nutrient dense foods such as vegetables are often established in childhood.<sup>5</sup> However, in the UK, over a quarter of children are already overweight or obese by the time they start primary school<sup>6</sup> with only around one in six children consuming five or more portions of fruit and vegetables a day.<sup>7</sup>

### 1.1. The impact of early feeding experiences

The importance of early experiences in impacting upon later weight gain and eating behaviour is clear.<sup>8</sup> Significant research has examined the health impacts of milk feeding, with breastfeeding established as protecting infants against infectious disease, alongside longer-term health issues.<sup>9</sup> Research also highlights how breastfeeding is associated with a healthier weight into childhood and beyond,<sup>10</sup> a more varied diet<sup>11</sup> and healthier eating habits such as greater satiety responsiveness (ability to control your intake of food according to appetite) and reduced food fussiness.<sup>12</sup> Numerous health professional and peer led programmes have been developed to support mothers to initiate and continue breastfeeding for longer.<sup>13</sup>

The importance of the complementary feeding period, where babies are introduced to solid foods and progress to eating a family diet, is recognised as another important influence during formative years.<sup>14</sup> Department of Health guidelines in the UK recommend that infants are introduced to solid foods at around six months of age. Babies should be offered a wide variety of home cooked family foods, including finger foods from the start of this period. There should be a focus on new tastes and variety with breast or formula milk constituting the main part of their diet throughout the first year. If parents choose to specially prepare foods for their baby, finely pureed foods should only be used, if at all, from the start of this period, with progression to lightly mashed and finger foods. Although commercially available products are safe, they can be high in sugar and lack different textures and tastes and should be used sparingly alongside home cooked family foods.<sup>15</sup>

## 1.2. Introducing solid foods

Guidance suggests that babies should start solid foods at around six months of age due to extensive research showing there is no benefit to introducing solid foods before this time but that delaying until around six months decreases the risk of infectious disease.<sup>16</sup> An earlier introduction of solid foods can also be associated with a shorter breastfeeding duration reducing the immune protection that breastmilk offers infants.<sup>17</sup> It may also affect weight; an early introduction of solid foods before four months increases risk of overweight<sup>18</sup> in part because infants given solid foods earlier often do not reduce their overall calorie intake, particularly if formula fed.<sup>19</sup> However, despite guidelines recommending introducing solid foods at around six months since 2003, many parents still introduce solid foods before this period. In the last UK Infant Feeding Survey 30% of mothers reported introducing solid foods before four months old with 75% having done so by five months old.<sup>20</sup>

Guidelines examining when to introduce solid foods recommend that alongside infant age, signs of physical developmental readiness for solid foods should be considered. These signs include infants being able to sit and hold their head steadily, being able to reach out for food and bring it to their mouth, and once in the mouth, being able to chew and swallow. These physical signs of readiness typically happen at around the same time that an infant's digestive system matures to be able to support eating a wider diet. Parents are advised to look for these physical signs of being ready to eat in their baby before starting solids.<sup>21</sup>

However, despite this guidance many common misconceptions around the signs of readiness for solid foods such as a baby waking at night, being a 'big' baby, feeding frequently or having teeth remain. These are typically associated with a belief that a baby needs solid foods before six months<sup>22, 23</sup> and were some of the most common reasons for early introduction seen in the Infant Feeding Survey. Two thirds of mothers who introduced solids at three to four months believed that their baby was no longer satisfied by milk feeds, even though milk is a much more energy dense than many typical weaning foods.<sup>20</sup>

## 1.3. First foods

In terms of what foods to give babies, starting solids guidelines recommend that babies are given small amounts of a variety of different tastes and textures alongside their usual milk

feeds.<sup>14</sup> The term 'complementary feeding' emphasises that these foods should complement or add to the infant diet rather than detracting from the nutrients of breast or formula milk. Parents should therefore focus on nutrient rich fruits and vegetables alongside healthy fats, proteins and carbohydrates. Although commercial baby foods are safe, they should be used sparingly as many are high in sugar, finely processed (removing texture) and often similar in taste despite different ingredients due to a predominance of apple or pear based contents.<sup>24</sup>

Research examining what foods parents are offering their baby during the complementary feeding period is relatively sparse. The UK Infant Feeding Survey identified that 81% of babies were eating fruit, 80% were eating vegetables and breakfast cereals and 68% were having dairy products each day. Most babies were also eating potatoes, chicken, rice, pasta and bread each week. Other protein foods like beef, fish, lamb and pork were eaten less frequently.<sup>20</sup> However, the US based Feeding Infants and Toddlers study found that although fruits and vegetables were offered daily, babies were consuming just 68g per day of vegetables.<sup>25</sup> In a UK based study babies aged 6 – 12 months were offered fruits and vegetables 3 – 4 times per day, although no measure was taken of volume. Protein was offered less than once a day with a focus on more carbohydrate rich foods.<sup>26</sup> Follow up data from a small-scale diet diary study highlighted that many babies this age were consuming lower than recommended levels of protein and micronutrients in their diet.<sup>27</sup>

Use of commercial products is also common with parents choosing them for convenience, perceived health benefits and beliefs that they are safer than home cooked foods.<sup>28</sup> In the Infant Feeding Survey over half of babies received commercial baby rice for their first food, with earlier introduction associated with a higher reliance on products such as rusks. Mothers who delayed introducing solids until six months were more likely to offer fruits and vegetables as first foods but the majority of babies (over four in five) still received some commercial baby foods as part of their diet.<sup>20</sup> Parents who follow a traditional weaning approach of spoon feeding and pureed/ mashed foods are more likely to use commercial products and use them more often compared to parents who let their baby self-feed family foods.<sup>26</sup> Snack foods such as crisps, puffs and biscuits are often offered and appear to be viewed as distinct from adult snack foods which parents are keen to avoid.<sup>29</sup>

## **1.4. Responsive feeding**

Another important element of introducing solid foods is responsive feeding. Responsive feeding focuses on following a baby's cues of hunger and satiety and letting them set the pace of meals. Parents should offer their baby a wide variety of tastes and textures but place less focus on how much their baby eats. Offering finger foods as part of this allows babies to play with and explore how foods taste, smell and feel, something which is associated with trying new foods in research with older children.<sup>30</sup> However, parents often worry about their baby eating enough or the 'right' types of food with behaviours such as encouraging babies to finish a portion of food common.<sup>31</sup> Pressurising or encouraging babies to eat more, or concern over how much a baby is eating is associated with an increased risk of overweight as a toddler.<sup>32</sup>

## **1.5. Parental concerns**

Some parents find introducing solid foods to be a stressful experience.<sup>33</sup> Concerns around which foods to give, how to make mealtimes enjoyable and how to support their baby to become an adventurous eater are common.<sup>34,35</sup> This is often exacerbated by conflicting, inaccurate or outdated information from friends and family often around the timing of starting solids and signs of readiness.<sup>36</sup> Parents can feel a lot of pressure to start solids before this time particularly from older family members who followed earlier guidance to do so when they were caring for their own baby. Many also feel that there is insufficient information around starting solids, even reporting that guidance from healthcare professionals can be misleading or conflicting.<sup>22,34,36</sup> Given the benefits of good knowledge and practice around starting solids, there is a clear need for further support and guidance at this time.

## **1.6. The HENRY Starting Solids Workshop and evaluation**

As part of their work to support new parents HENRY deliver a Starting Solids workshop. The workshop is offered to parents before they start solids with their baby to encourage them to delay starting until around six months of age and equip them with the knowledge and confidence to do so safely and effectively. This course is delivered in small groups settings, although changes were made to offer online delivery during the Covid-19 pandemic. The workshop (which lasts approximately one hour and twenty-five minutes) is run by trained facilitators and covers content such as:

- Timing of introducing solid foods
- Signs of readiness for solid foods
- What foods to start with and offer
- Signs of hunger and satiety
- Making mealtimes enjoyable

To give a description of reach, the workshops are delivered across 27 areas in England, typically after commission by local authorities or public health boards. Around 100 workshops were delivered in 2020, rising to around 200 in 2021. In the first half of 2022 around 130 workshops were delivered. In terms of participation in the workshops, in 2020 around 360 parent/carers took part. This rose to around 930 in 2021, with around 720 participants in the first half of 2022. Recommended group size is around 6 – 12 participants.

Although workshop facilitators collect course evaluations from participants before and after the workshops are delivered, there was a need to evaluate the impact of the workshop more formally upon parent knowledge, confidence and behaviours. In 2019 HENRY approached the research team at Swansea University to conduct an external evaluation of the workshops. Data collection ran from August 2020 to March 2022.

### **1.7. Aims of the evaluation**

The aim of this evaluation was to explore the impact of the HENRY Starting Solids workshop upon parent / carer knowledge and confidence in introducing solid foods. Specifically, it sought to examine the impact of the workshop upon:

1. Knowledge around starting solid foods including timing, what foods to offer and spotting signs of readiness
2. Confidence around different aspects of starting solids and preparing meals
3. Behaviours and decisions around timing of solid foods, which foods to offer and responsive feeding practices

Finally, it sought to explore participant experience of taking part in the workshop alongside any ideas for improvement.



## 2. Methodology

### 2.1 Design

The study consisted of four data collection periods, designed as a rolling longitudinal study. Data were collected between August 2020 and March 2022. All participants who took part in a Starting Solids workshop between August 2020 and December 2021 were invited to take part in stages one to three with an invite to participants whose baby was aged 9 – 15 months during January – March 2022 to take part in stage four. Participation in the workshop was separate to participation in the research and participants were free to opt out at any time. The four stages of data collection included:

- **Stage one:** A pre workshop questionnaire
- **Stage two:** A post workshop questionnaire
- **Stage three:** A follow up questionnaire when their baby reached 7 - 8 months old (i.e. post recommended age to start complementary feeding).
- **Stage four:** A semi structured interview when their baby was aged 9 – 15 months old. Interviews took place at the end of the project from January – March 2022.

Data collection coincided with the COVID-19 lockdown and social distancing regulations required that all data was collected remotely. The implications of this approach are considered in the discussion. Approval for this study was granted by Swansea University College of Human and Health Sciences Research Ethics Committee. All participants gave informed consent.

### 2.2 Participants

All participants who signed up to attend a HENRY workshop between August 2020 and December 2021 were invited to take part in the study. Participation in the study was not required to attend the workshop. During the period of data collection approximately 1000 parents/ carers completed the workshops, with groups sizes varying from 1 – 18 participants. Typically, attendees were parents or carers of a baby who had not yet started solids, although some participants had an older baby who had already started solids at the time of the workshop. The workshop was also accessed by two participants who were attending in a

professional setting for an update on starting solids. The decision was made to remove their data from the study as they were not completing the survey in response to their own baby.

## 2.3 Measures

Data was collected using online questionnaires for stages one to three, and an online interview in stage four.

**In stage one**, participants completed a questionnaire which included demographic information about themselves and their baby, knowledge about introducing solid foods e.g. timing, signs of readiness, and responded to a series of items exploring beliefs about starting solids. This questionnaire was based on an adapted version of an evaluation questionnaire that the HENRY team used at the start of each Starting Solids workshop.

**In stage two**, participants completed a second questionnaire again collecting demographic background information and details about which session was attended. The items exploring knowledge about introducing solid foods and common beliefs were repeated. This was followed by items evaluating the workshop including impact upon knowledge and confidence and experiences of the workshop being conducted online due to the Covid-19 pandemic.

**In stage three**, participants completed a third questionnaire this time exploring their experiences of introducing solid foods to their baby and a reflection on how the workshop did or did not help with the process. It included questions exploring timing and method of solid food introduction alongside confidence and knowledge. It also examined behaviours around introducing solid foods i.e. responsive feeding and safety. Next followed a food frequency questionnaire to illustrate the types of food their baby was eating and how often. Finally, questions explored whether the HENRY workshop helped with introduction of solid foods.

**In stage four**, participants took part in an online semi structure interview using Zoom. At the start of the interview basic demographic details were confirmed including maternal age, ethnicity, and number of children. A series of questions then examined timing and method of solid food introduction, confidence and knowledge, feeding behaviours e.g. responsive feeding, and perceptions of the HENRY workshop. Interview questions are shown in Table one.

**Table one: Semi structured interview guide topics**

- How old was your baby when you first introduced solid foods?
- What were the main reasons for introducing solids at that time?
- What was the first food you gave them? Was there any reason for giving that food?
- Have you introduced finger foods such as cooked vegetables or toast to your baby?
  - If yes, what sorts of foods do they eat this way? How do you feel about letting your baby feed themselves?
  - If no, how old do you think your baby will be and why?
- What sorts of foods does your baby eat?
  - What are their favourites? Are there any foods your baby doesn't like? Are there any foods you avoid giving your baby?
- Does your baby eat many ready-made baby foods?
  - If yes, which ones? What led you to choose those foods?
  - If no, what are the reasons for this?
- How often does your baby eat the same foods as the rest of the family? Does your baby ever join in family mealtimes? Or sit with you at the table when you eat?
- If you think back to introducing solid foods to your baby, how did you feel? Did you feel confident? Or have any concerns? Has that changed over time?
- Do you feel that you have enough information on things like which foods to give your baby, how much and when?
- Does your baby like trying new foods or are they a little suspicious of new tastes?
- Do you have any concerns about how much your baby eats or which foods they like? Do you ever worry about them eating too much or too little?
- Do you feel that you had enough information about how to safely introduce solid foods to your baby?
- If you think back to the workshop do you feel it included useful information? Did it help you feel more confident? Did it make starting solids more enjoyable?
- Was there anything that you learned during the workshop that particularly helped when introducing solids? What?
- Were you glad that you attended the workshop? Would you recommend it to others?
- Now that you have experience of giving your baby solid food, is there anything else you would have liked the workshop to cover? Or do differently?
- Do you have any other comments about how the HENRY workshop affected your experience of giving solid food to your baby?

## 2.4. Procedure

**In stage one** all participants who signed up to take part in a HENRY Starting Solids Workshop were sent a pre workshop questionnaire alongside their registration details. It was emphasised that taking part in the research evaluation was not necessary to access the workshop. The wording of the message that was sent via email or text read:

Thank you for booking onto a HENRY Starting Solids workshop. We would be grateful if you would take part in an evaluation of the workshop so we can understand if the workshop is helpful and how we might improve it. We have teamed up with the Swansea University to help us with this evaluation. Before the workshop, please click the link below and complete a short survey on your thoughts and feelings about starting your baby on solid foods. We will then ask you after the workshop about your experience of completing it. If you don't wish to take part in the evaluation, that's fine – it's completely voluntary. You will still be able to attend the workshop. Thank you.

The questionnaire was accessed via an electronic link taking them to an online questionnaire hosted by Qualtrics. On clicking on the link, a participant information sheet and consent questions loaded. If participants agreed with the consent questions the full questionnaire loaded. At the end of the questionnaire a debrief loaded encouraging participants to contact their health professional if they had any questions. Details of the research team were also available at the if participants had any questions. No IP addresses were collected.

**In stage two** all participants who registered for the workshop were sent a follow up email / text within 48 hours of the workshop asking them to take part in an evaluation of the workshop itself. Participants did not have to have taken part in questionnaire one to complete this post workshop questionnaire. At the end of questionnaire two, participants were asked if they would be happy to be contacted by the research team to take part in a further questionnaire when their baby was 7 – 8 months old. Contact details were kept separately to their questionnaire data. The wording of the message that was sent via email or text read:

Thank you for attending the HENRY Starting Solids workshop. We would be grateful if you would take part in an evaluation of the workshop so we can understand if the workshop is helpful and how we might improve it. We have teamed up with the Swansea University to help us with this evaluation. If you would like to take part, please click the link below to complete a short survey about your thoughts and feelings about the workshop and introducing solid foods to your baby. Thank you.

**In stage three** all participants who had consented to be contacted in questionnaire two were sent an email / text with details of the third stage of the questionnaire when their baby was aged 7 – 8 months. The wording of the message that was sent via email or text (depending on how participants signed up) read:

This is a message from the research team at Swansea University who have teamed up with HENRY to evaluate their starting solids workshop. We are contacting you because you completed an earlier evaluation of your experiences of the workshop and gave us permission to send you details of a further short questionnaire now your baby is around 7 – 8 months. This questionnaire will explore your experiences of introducing solid foods to your baby. If you would like to take part, please click on the following link for further information. If you no longer wish to take part, please ignore this message. Thank you for your time and support.

**In stage four** all participants who attended the HENRY Starting Solids Workshop whose baby was aged 9 – 15 months between January – March 2022 and who had consented to further follow up were invited to take part in the interview. Eligible participants were sent a text message and email inviting them to participate. The wording of the message that was sent via email or text (depending on how participants signed up) read:

‘This is a message from the research team at Swansea University who have teamed up with HENRY to evaluate their starting solids workshop. We are contacting you because you completed an earlier evaluation of your experiences of the workshop and gave us permission to send you details of a final study now your baby is around 12 months. We would like to conduct some interviews to explore your experiences of the workshop. These interviews will last around 30 – 45 minutes and you would receive a £10 Amazon voucher as a thank you. If you would like to take part, please click on the following link for further information. If you no longer wish to take part, please ignore this message. Thank you for your time and support.’

Those who expressed an interest in participating were sent a study information sheet and consent form describing the procedure for the interviews and ethical standards such as confidentiality and right to withdraw. Overall, twenty expressed an initial interest with seventeen expressing interest to arrange an interview date via Zoom video call. In the end eleven participants took part in interviews during January - March 2022.

At the start of the interview the researcher read through the information sheet again with the participant, offering opportunity for questions. As it can be difficult to complete a consent form on a mobile device, verbal consent was sought before the interview began, as agreed with the ethics committee. Permission was sought to record the interview with participants being offered opportunity to turn off their camera if they preferred, although no participant chose to do this. Zoom captures a transcript of the calls which was saved to support verbatim transcription. Otter.ai software was also used as a back-up. At the end of the interview participants were given a short debrief with information about the study and given opportunity to ask any further questions or provide further detail about their experience.

## **2.5 Data analysis**

Quantitative data were analysed using SPSS version 27. Interview data were transcribed verbatim by the researcher who conducted the interviews, using the Zoom and Otter.ai transcripts as a guide. A thematic analysis was used to identify themes and sub themes that participants presented in the data.<sup>38</sup> Participant quotes are used to illustrate identified themes including details of demographic background (parent/carer, ethnicity and age).

## **3. Results**

The results are presented in four parts, in line with each stage of the research: pre workshop, post workshop, follow up when babies were 7 – 8 months and a final interview when babies were around 9 – 15 months.

### **3.1.1. Part one: Pre workshop survey**

Eight hundred and sixty seven participants completed the pre workshop survey. Overall, 844 (97.3%) were the mother of their baby, 12 (1.4%) the father of their baby, 7 (0.8%) a carer for the baby and 4 (0.5%) did not complete this question. Mean age of respondents was 32.9 (SD: 5.41) with a range from 17 – 52. The majority were first time parents (n = 686, 79.8%) with most other respondents having two or three children (n = 145, 16.9%). Sixteen participants had four or more children with eight participants not having their own children or were pregnant. Table two provides further demographic background information about the participants.

**Table two: Demographic background of pre workshop participants**

<b>Category</b>	<b>Sub-category</b>	<b>N</b>	<b>%</b>
<b>Age</b>	17-24	60	7.0
	25-29	147	17.1
	30-34	301	34.7
	35-39	270	31.1
	40-44	68	7.8
	45+	13	1.4
	Question not answered	7	0.8
<b>Education</b>	No formal qualifications	14	1.6
	GCSE or equivalent	62	7.2
	A level or equivalent	100	11.6
	Degree or equivalent	360	41.8
	Postgraduate qualification or equivalent	158	33.5
	Question not answered	5	0.6
<b>Ethnicity</b>	Asian or Asian British: Bangladeshi	12	1.4
	Asian or Asian British: Chinese	8	1.7
	Asian or Asian British: Indian	15	1.7
	Asian or Asian British: Pakistani	30	3.5
	Black or Black British	46	15.9
	White or White British or Irish	624	72.4
	Mixed or Multiple	37	4.3
	Other	75	8.7
	Prefer not to say / missing	15	1.7

Further options given when participants selected 'other' for ethnicity included Turkish, Kurdish, Afghan, Filipino, African, Congolese, Brazilian, Albanian, Arab, Russian, Slovak, Nepalese, Latin American, Romanian, Mauritian, Hispanic, Lithuanian, Hungarian, Iranian, Brazilian, and Middle Eastern.

### 3.1.2. Starting solids

When asked what age participants felt that babies should be introduced to solid foods, the vast majority chose 'around six months' (n = 756, 87.2%). One participant (0.1%) chose around three months, 30 participants (3.5%) chose around four months, 32 (3.7%) around five months and 41 participants (4.7%) over six months. For recommended age of introduction to finger foods, 568 (65.5%) chose around six months, 211 (24.3%) around 9 months and 33 (3.8%) around one year. Some participants chose earlier with one participant (0.1%) choosing around 3 months and 9 (1.0%) 4 – 5 months. Finally, 42 (4.8%) were unsure.

Participants were asked when they were planning to introduce solid foods to their baby. The majority chose around six months (n = 739, 85.2%). A small number (n = 88, 10.1%) chose 4 – 5 months and one participant (0.1%) three months. Some participants chose later with 13 (1.5%) choosing nine months and seven (0.8%) around one year. A further 18 (2.1%) were unsure. When asked in an open-ended box to expand on the reasons for choosing this age, the majority gave reasons based around professional guidance and developmental readiness.

*'He should be able to sit up in a highchair, enjoy picking up fingers food and experimenting with his tongue and mouth.'* (Carer, prefer not to say, aged 21)

*'That is the recommendation. Baby should be sitting up and can bring hand to mouth easily.'* (Mother, white, aged 38)

For those who were planning to introduce food earlier or had already done so, some parents felt that their baby was already showing physical signs of readiness such as being able to sit up and hold their head. Other reasons given included:

*'Baby looking at food, not sleeping through, going shorter times between feeds.'* (Mother, Black British, aged 23)

*'She's big for her age and think she's ready.'* (Mother, white, aged 26)

*'He is a very hungry baby.'* (Mother, white, aged 35)

*'She is getting curious about food.'* (Mother, white, aged 36)

*'I think they are ready at that age and it's what my friends generally do.'* (Mother, Bangladeshi, aged 19)



When asked what type of foods parents planned to give their baby 215 (24.9%) planned to give only home cooked foods, 399 (46.1%) mainly home cooked foods, 235 (27.2%) some home cooked and some shop bought foods, 12 (1.4%) mainly shop bought baby foods and 4 (0.5%) all shop bought baby foods.

In terms of milk feeding, 400 (47.2%) were currently exclusively breastfeeding, 292 (33.7%) exclusively formula feeding and 156 (18.0%) mixed breast and formula feeding. Of those who were currently breastfeeding, 468 (86.0%) planned to carry on when they introduced solid foods, 59 (6.8%) might continue but were not sure and 17 (3.1%) had decided to stop. Overall, 755 participants (88.7%) agreed that breast or formula milk should still be the main part of a baby's diet once solids were introduced with just 94 (11.0%) believing solids should be the main part and only two participants (0.2%) believing that milk was no longer needed at all.

### 3.1.3. Signs of readiness

Participants were asked whether they felt that certain behaviours were a sign that their baby was ready for solid foods. The proportion who agreed or strongly agreed with each statement is shown in Table three.

**Table three: Signs that baby was ready for solid foods**

Sign	N	%
They have reached a certain weight	67	7.7
They are waking up more at night	76	8.8
They have teeth	92	10.6
They are feeding more often	116	13.4
They start watching you eat	434	50.1
They are around 6 months old	507	58.5
They can pick up food and put it in their mouth by themselves	516	59.5
They can move food to the back of their mouth and swallow it	106	12.1
They can stay in a sitting position and hold their head up unsupported	731	84.3

### 3.1.4. Confidence in starting solid foods

Participants were asked about how confident they now felt about different aspects of introducing solid foods. Table four shows the proportion of the full sample who agreed or strongly agreed with the following statements:

**Table four: Confidence around introducing solid foods**

<b>Sign</b>	<b>N</b>	<b>%</b>
When to start to introduce solid foods to my baby	515	60.7
Signs my baby is ready for solid foods	513	61.7
Which solid foods to give my baby to start with	359	42.7
How to keep my baby safe when giving them solid foods i.e. preventing choking	249	29.7
How much solid food to give my baby	179	21.4
Knowing when my baby has had enough to eat	318	39.0
Giving my baby finger foods	344	29.0
Encouraging my baby to try different foods	569	68.1
Balancing milk and solid foods	288	34.2
Preparing meals for my baby	466	55.5
Making mealtimes enjoyable for my baby	502	58.3

### 3.2.1. Part two: Post workshop survey

Four hundred and thirty-nine workshop participants completed the post workshop survey. Overall, 425 (97.5%) were the mother of their baby, 8 (1.8%) the father of their baby, 3 (0.7%) a carer for the baby and 3 (0.7%) did not complete this question. Mean age of respondents was 33.1 (SD: 5.41) with a range from 18 – 56. The majority were first time parents (n = 357, 81.3%) with most other respondents having two or three children (n = 66, 15.0%). Ten participants had four or more children with three participants not having their own children or were pregnant. Table five provides further participant demographic background.

**Table five: Demographic background of post workshop participants**

<b>Category</b>	<b>Sub-category</b>	<b>N</b>	<b>%</b>
<b>Age</b>	18-24	33	7.6
	25-29	73	15.0
	30-34	153	34.8
	35-39	135	30.8
	40-44	32	7.3
	45+	9	2.1
	Question not answered	4	1.0
<b>Education</b>	No formal qualifications	6	1.4
	GCSE or equivalent	26	5.9
	A level or equivalent	50	11.4
	Degree or equivalent	181	41.2
	Postgraduate qualification or equivalent	158	36.0
	Question not answered	16	0.5
<b>Ethnicity</b>	Asian or Asian British: Bangladeshi	6	1.4
	Asian or Asian British: Chinese	5	1.1
	Asian or Asian British: Indian	14	3.2
	Asian or Asian British: Pakistani	23	5.2
	Black or Black British	21	4.8
	White or White British or Irish	300	68.3
	Mixed or Multiple	18	4.1
	Other	42	9.6
	Prefer not to say / missing	10	2.3

Further options given when participants selected 'other' for ethnicity included Somali, Nepalese, Romanian, Latin American, Turkish, Mongolian, Mauritian, Filipino, Polish, Spanish, Italian, Black African, Hispanic, Congolese, Arab and Hungarian.

### 3.2.2. Starting solids

When asked what age participants felt that babies should be introduced to solid foods, the majority chose 'Around six months' (n = 422, 96.6%). Three participants (0.7%) chose around four months, three (0.7%) around five months and nine participants (2.1%) over six months. For recommended age of introduction to finger foods most chose around six months (n = 359, 82.3%) with 70 (16.1%) choosing around nine months, five (1.1%) around one year, with two participants (0.5%) unsure. When asked when they were planning to introduce solid foods to their baby the majority chose around six months (n = 398, 91.5%). A small number (n = 26, 6.0%) chose 4 – 5 months, with four (1.6%) choosing nine months and four (0.9%) around one year. When asked in an open-ended box the main reasons for choosing this age, the majority of reasons given were based around professional guidance and developmental readiness.

*'Signs of readiness - good hand eye mouth co-ordination, sitting up better, watching what we are eating all the time and copying with spoons.'* (Mother, white, aged 32)

*'When she is able to proper sit and also hold her head.'* (Mother, Turkish, aged 38)

For those who were planning to introduce food earlier or had already done so, some parents felt that their baby was already showing physical signs of readiness such as being able to sit up and hold their head. Other reasons given included:

*'He was reaching out for food.'* (Mother, Black British, aged 33)

*'I find the child not satiating with maternal milk this last time. He heads after 30 minutes and 1 hour, he calls again.'* (Mother, Black African, aged 35)

*'Teething, interest in food, sitting well.'* (Mother, Polish, aged 43)

When asked what type of foods parents planned to give their baby 141 (32.3%) planned to give only home cooked foods, 236 (54.0%) mainly home cooked foods, 58 (13.3%) some home cooked and some shop bought foods, and 2 (0.5%) all shop bought baby foods.

In terms of milk feeding, 224 (53.3%) were currently exclusively breastfeeding, 129 (30.7%) exclusively formula feeding and 67 (16.0%) mixed breast and formula feeding. Of those who were currently breastfeeding, 263 (90.7%) planned to carry on when they introduced solid

foods, 22 (7.6%) might continue but were not sure and five (1.7%) had decided to stop. Overall, 400 participants (91.5%) agreed that breast or formula milk should still be the main part of a baby's diet once solids were introduced with 36 (8.2%) believing solids should be the main part and only one participant (0.2%) believing that milk was no longer needed at all.

### 3.2.3. Signs of readiness

Participants were asked whether they felt a series of behaviours or experiences were a sign that their baby was ready for solid foods. The proportion who agreed each stage was a sign is shown in Table six. A comparison to the responses given in the pre workshop survey is also included. Broadly, agreement with the 'spurious' signs for introducing solid foods such as reaching a certain weight or waking at night decreased after the workshop whilst agreement with the recommended signs for introducing solids such as being able to sit and pick up pieces of food increased.

**Table six: Signs that baby was ready for solid foods pre- and post- workshop comparison**

Sign	Post workshop		Pre workshop	
	N	%	N	%
They have reached a certain weight	5	1.1	67	7.7
They are waking up more at night	15	3.4	76	8.8
They have teeth	18	4.1	92	10.6
They are feeding more often	18	4.1	116	13.4
They start watching you eat	109	24.8	434	50.1
They are around 6 months old	233	53.1	507	58.5
They can pick up food and put it in their mouth by themselves	386	87.9	516	59.5
They can move food to the back of their mouth and swallow it	402	91.6	106	12.1
They can stay in a sitting position and hold their head up unsupported	416	94.8	731	84.3

### 3.2.4. Confidence in starting solid foods

Participants were asked how confident they now felt about different aspects of introducing solid foods. Table seven shows the number of parents who agreed or strongly agreed with these statements. A comparison to the responses given in the pre workshop survey is included, showing that confidence increased after taking part in the workshop.

**Table seven: Confidence around introducing solid foods pre- and post- workshop comparison**

	Post workshop		Pre workshop	
	N	%	N	%
When to start to introduce solid foods to my baby	423	96.4	515	60.7
Signs my baby is ready for solid foods	407	95.3	513	61.7
Which solid foods to give my baby to start with	413	94.5	359	42.7
How to keep my baby safe when giving them solid foods i.e. preventing choking	351	81.4	249	29.7
How much solid food to give my baby	361	83.2	179	21.4
Knowing when my baby has had enough to eat	391	90.5	318	39.0
Giving my baby finger foods	362	83.2	344	29.0
Encouraging my baby to try different foods	417	96.3	569	68.1
Balancing milk and solid foods	349	80.2	288	34.2
Preparing meals for my baby	377	86.9	466	55.5
Making mealtimes enjoyable for my baby	400	92.0	502	58.3

### 3.2.5. Evaluating the Starting Solids workshop

Participants were then asked about their experiences of the Starting Solids Workshop. Overall, the majority of participants (n = 426, 97.0%) felt that the workshop was the right length with five (1.1%) feeling that it was too long and eight (1.8%) that it was too short. Table eight shows the number of participants who agreed or strongly agreed with the following statements:

**Table eight: Experience of the Starting Solids Workshop**

	N	%
I feel more knowledgeable about introducing solid foods to my baby now	426	97.5
I feel more confident introducing solids foods to my baby now	411	95.1
I feel more aware of how to introduce solids safely now	413	94.9
I understand more about the importance of responsive feeding for my baby now	397	91.7
The workshop has encouraged me to delay introducing solid foods until around six months	273	62.8
The workshop was easy to follow	425	98.4
The workshop was informative	431	99.3
The workshop was delivered in a friendly and relaxed way	426	98.4
I felt comfortable in the workshop	425	98.2
I felt connected to other parents in the workshop	267	61.8
The workshop felt non-judgemental	415	95.6
The workshop will make introducing solid foods to my baby a more positive experience	409	94.5
I would recommend the workshop to other new parents	424	97.7
The workshop was about the right length	400	92.6

Participants were offered two open ended boxes to reflect on what they felt worked well about the workshops and what additions or changes they would like to see. In terms of what worked well, the content of the workshops was viewed as informative and high quality. Information on what foods to give, portion sizes and choking risk were very much appreciated.

*'Reassurance my baby won't choke on everything.'* (Mother, white, aged 32)

*'Understanding the key types and range of foods to introduce. Finding out that it's better to wait a few weeks before offering fruit. How to introduce allergens and why it's important to do so.'* (Mother, white, aged 33)

*Types of food to introduce, including allergens. Importance of texture and shapes. Trying foods up to 15 times. Resist wiping baby's face. Also the fact that introducing solid foods doesn't need to be regimented. (Mother, white, aged 34)*

The format of the workshop also rated highly, particularly in terms of being able to ask questions and clarify different points. The information in the workshops was seen as more credible and reassuring than searching for information yourself.

*'I liked that I could ask questions and get an informed answer as opposed to getting conflicting messages online.'* (Mother, Pakistani, 34)

*'Opportunity to ask questions and clarify points around the national guidance.'* (Mother, white, aged 34)

Part of this was hearing other parents ask questions too. This helped both in terms of introducing new questions that parents may not have thought of and providing reassurance that other parents have questions too.

*'Being able to ask any questions and also hear questions from other parents that I didn't think of.'* (Mother, Bangladeshi, aged 31)

*'It made me realise that I am not the only one who doesn't have a knowledge of introducing solids, which was a relief. It was a good informative session - a good starting point.'* (Mother, Mixed, aged 34)

Finally, the presentation style of those leading the sessions was often praised. Presenters were viewed as knowledgeable, approachable and welcoming.

*'The presenters were knowledgeable, experienced, and friendly.'* (Mother, Chinese, aged 38)

*'The two ladies running the session are incredible at what they do. They kept a positive, professional and approachable nature during the session, and I believe this to be a high contributing factor as to why I learnt so much today!'* (Mother, Pakistani, aged 31)

In terms of improvements or changes, many participants had nothing to add in this section. Often when improvements were suggested these were based around 'more' content such as longer sessions or more detail on certain topics. In particular this included further information around allergies and more in depth examples of different foods and meals to offer.



*'Please mention allergies. I had no allergy experience when my 2nd child had anaphylaxis. He's the only child in our entire family with an allergy. Please have a whole session which covers this. One in 3 children have allergies and parents need help!' (Mother, Black British, aged 29)*

*'If the session could be split into 2 or 3 sessions that are an hour each. So that the information can be discussed in further detail and there can be more of an understanding about starting solids and the different foods that we can try and the ages we should try them. Maybe even a list of all the different foods and how to prepare them would be great.'* (Mother, Black British, aged 23)

*'Maybe when first time mothers start weaning you can do a review by ringing them in the first month to see how they are getting on.'* (Mother, Bangladeshi, aged 36)

Others wanted more time to be able to interact with the workshop leaders and other parents, although the constraints of this particularly for online delivery were recognised.

*'More interaction but it was on zoom so a difficult task given the context!' (Mother, white, aged 33)*

*I would like to meet people in person and become friends with other people with a baby.'* (Mother, Bangladeshi, aged 28)

A minority of participants felt that the workshop delivered information that was conflicting to their views, which they perceived to be judgemental.

*'I felt a little bit like there was judgement about starting purees from 4 months despite lots of research supporting this and lots of baby foods aimed at 4months +. I think being more open minded and saying when babies are ready as babies may or may not be ready for solids at 6 months old.'* (Mother, white, aged 32)

### **3.2.6. Experiences of online learning**

Finally, participants were asked whether they attended the workshop online or at a community venue. Of those who responded to this question 92 (21.2%) attended face to face at a community venue and 329 (74.9%) online due to the Covid-19 pandemic. Those who attended online were asked a series of further questions. Table nine shows the number of participants who agreed or strongly agreed with the following statements:

**Table nine: Experience of attending the Starting Solids Workshop online**

	N	%
I felt it was more convenient to join online	171	79.9
I would have preferred to be in a community venue with others	159	47.2
I think HENRY should keep an online workshop option in the future even when we can have sessions at a venue with others again	301	91.1
It was easy for me to join an online workshop i.e. good internet connection and a device	313	92.6
Having the option to join online encouraged me to take part	246	72.8
I felt more confident taking part online than going to a venue with other parents	139	41.2

In terms of experiences of taking part online, participants described a number of positives and challenges. The main benefit of attending online was convenience, particularly when parents had older children in nursery or school or would find it difficult to travel. Participants also felt less as if they were causing disruption if their baby was unsettled.

*'I think it was easier for me to do online though as if my baby was unsettled I could walk around or have the mic off. It also enabled me to be comfortable in my own home.'* (Mother, white, aged 33)

*'The workshop was excellent, I liked that it was online because it was convenient with me being a new mum and having to juggle a lot.'* (Mother, Black British, aged 33)

The main challenges of attending online were around connectivity issues both in terms of internet connection and finding it difficult to bond with others.

*'My connection wasn't very clear so the video of teachers kept disappearing. Would have preferred to use Zoom or Google teams.'* (Mother, Pakistani, aged 23)

*'I feel more confident with people in a room not online. You can talk to them more.'* (Mother, Kurdish, 36)

### 3.3. Part three: Babies aged 6 – 9 months

Two hundred and eighty three participants gave permission to be contacted for the follow up survey. Of these 58 (20.2%) took part. Mean age of babies was 7.74 months (SD: .85) with a range from 6 – 9 months. Further demographic detail is show in table 10.

**Table ten: Demographic background of post workshop participants**

Category	Sub-category	N	%
<b>Age</b>	18-24	1	1.7
	25-29	8	13.8
	30-34	24	41.4
	35-39	21	36.1
	40-44	5	8.5
<b>Education</b>	No formal qualifications	0	0.0
	GCSE or equivalent	2	3.4
	A level or equivalent	4	6.9
	Degree or equivalent	22	37.9
	Postgraduate qualification or equivalent	29	50.0
<b>Ethnicity</b>	Asian or Asian British: Bangladeshi	1	1.7
	Asian or Asian British: Chinese	0	0.0
	Asian or Asian British: Indian	1	1.7
	Asian or Asian British: Pakistani	3	5.2
	Black or Black British	1	1.7
	White or White British or Irish	38	65.5
	Mixed or Multiple	10	17.2
	Other	4	6.8

#### 3.3.1. Starting solids

All participants had introduced solid foods to their baby. Average age of starting solids was 25.14 weeks with a range from 17 – 33 weeks. The majority of babies were introduced to

solids at 'around' six months with 40 babies (70.1%) having solids between 24 – 28 weeks. Eleven babies (19.3%) started solids before this time and four babies (6.8%) after this time. In terms of first foods, the majority of babies were given fruits or vegetables with broccoli being very common and the first food of over a quarter of babies. Although some babies were given starchier foods such as potatoes and yams, green and colourful vegetables were the most common first foods to give. Over 60% of babies had vegetables for their first food. Foods such as baby rice, baby porridge and rusks were in the minority for first foods, with 8 babies (13.7%) consuming these products. The remainder were typically given fruits although foods such as omelette or pasta also featured.

The majority of babies (n = 53, 91.4%) had been introduced to finger foods such as cooked vegetables or toast. Of those who had not yet offered finger foods, two participants were aiming to introduce them at 8 – 9 months, two at 10 – 11 months and one at around a year. When examining first finger foods given, foods reflected the pattern of first foods overall with many receiving vegetables. Broccoli again came out on top, offered to 21 (36.2%) babies. Carrot, cucumber and avocado also featured heavily.

When asked what the main reason was for introducing solid foods, 30 (51.7%) stated age i.e. being around six months old. Twenty four parents (41.3%) cited developmental readiness signs i.e. sitting up and being able to pick food up themselves. One parent (1.7%) chose the option of their baby having teeth and three parents (5.2%) stated that their baby was watching them eat. Open ended responses to expand on this reason typically reflected these main options, and were frequently based around signs of developmental readiness.

*'He could sit upright unsupported and could pick things up and put them in his mouth.'*  
(Mother, 32, white, Started solids at 25 weeks)

*'He could stay in a sitting position and hold his head steady and co-ordinate his eyes, hands and mouth so he could look at the food, pick it up and put it in his mouth by himself and swallow food.'* (Mother, 33, Polish, Started solids at 6 months)

Some responses could be interpreted as reasons that are less likely to be recommended for starting solid foods, although these were in the minority. However even with these reasons many babies were at around 6 months old when given solids.

*'They were hungry after a bottle.'* (Mother, 32, white, Started solids at 24 weeks)

*'Was poorly and not taking much milk.'* (Mother, 34, white, Started solids at 5 months)

*'He kept placing his hands in his mouth.'* (Mother, 34, Pakistani, Started solids at 4 months)

*'She watched me when I was eating'* (Mother, 34, white, Started solids at 22 weeks)

### **3.3.2. What are babies eating now?**

At the time of responding to the questionnaire, the majority of babies were having solid foods 2 – 3 times per day (n = 53, 91.4%) with one baby having solids just once a day and four babies having solid foods four or five times per day. Babies were mainly eating a diet of 'family' or 'finger' foods in contrast to pureed or mashed foods. Overall, 12 (20.7%) ate only or almost all finger foods, 12 (20.7%) mostly finger foods, 20 (34.5%) around half finger foods and half purees, 8 (13.8%) mostly purees, and 1 (1.7%) almost all purees. In terms of food type, almost half (n = 27 46.6%) were offered only home cooked foods. The remainder ate some shop bought baby foods: 23 (39.7%) ate mainly home cooked foods, 6 (10.3%) half home cooked and half shop bought baby foods, and 2 mainly shop bought foods (3.4%).

Babies often sat and ate with the family with 43 (74.1%) joining in mealtimes every day or most days and 12 (20.7%) doing so sometimes. Just two parents (3.4%) noted that their baby rarely did this, with one (1.7%) saying that they never did. In terms of safety, parents reported that their baby mostly or always sat in a highchair or booster seat to eat (n = 53, 94.6%) with three parents saying that this sometimes happened (5.2%).

Milk was still playing a major role for most babies in their diet. For type of milk feeds, 30 (n = 51.7%) were exclusively breastfeeding for milk feeds, 20 (34.5%) exclusively formula feeding and 8 combination feeding (n = 13.8%). Overall, 4 parents (n = 6.9%) described their baby as having almost all milk feeds, 23 (39.7%) mostly milk feeds and 25 (43.1%) about half milk feeds and half solid foods. Just three babies had mostly (n = 2, 3.4%) or almost all (n = 1, 1.7%) solid food. Participants then completed a food frequency questionnaire for their baby, reporting how often their baby ate different foods. Table eleven shows the frequency that babies in the survey were eating different food types.

**Table eleven: Food frequency questionnaire (n = 58)**

Food	Every day or more		Most days		Once a week		Rarely or never	
	N	%	N	%	N	%	N	%
Fruit	43	74.1	7	12.1	2	3.4	6	10.3
Veg	55	94.8	1	1.7	1	1.7	1	1.7
Meat	8	14.0	15	26.3	14	24.6	20	35.1
Fish	16	27.6	15	25.9	11	19.0	16	27.6
Eggs	3	5.3	27	47.4	11	19.0	16	28.0
Pulses	6	10.5	23	40.4	12	21.1	16	28.0
Dairy	24	41.4	15	25.9	4	6.9	15	25.8
Bread	9	16.1	28	50.0	5	8.9	14	25.0
Pasta	0	0.0	24	41.4	16	27.6	17	29.8
Rice	2	3.6	18	31.6	15	26.3	22	38.6
Potatoes	3	5.2	31	53.4	14	24.1	10	17.2
Cereals	20	35.1	15	25.9	2	3.5	20	35.1
Cakes	0	0.0	1	1.8	1	1.8	54	96.4
Fruit juice or squash	1	1.7	1	1.7	0	0.0	55	96.5

### 3.3.3. Responsive feeding

Parents were asked about the different ways in which they engage with their baby during mealtimes, and more broadly across their diet. These questions were designed to explore ‘responsive feeding’ i.e. whether parents felt confident in letting their baby set the pace of their meal and how much they ate overall. Table twelve shows the number of parents who agreed or strongly agreed with the following statements:

**Table twelve: Responsive feeding behaviours (n = 58)**

	N	%
I let my baby decide when they are full	54	93.1
I encourage my baby to finish their meal	14	24.6
I worry about my baby eating too much or too little	23	39.7
I offer my baby food if they are unsettled or upset to calm them	12	27.6
I offer my baby food to try and encourage them to sleep	6	12.0

### 3.3.4. Confidence in giving solid foods

Participants were asked how confident they felt across a number of aspects of giving their baby solid foods. Table thirteen shows the number of parents who felt confident or very confident for different aspects with a comparison to confidence post workshop.

**Table thirteen: Confidence in giving solid foods**

Behaviour	Post starting solids		Post workshop	
	N	%	N	%
Which solid foods to give my baby	54	94.7	361	83.2
How to keep my baby safe when giving them solid foods i.e., preventing choking	51	89.5	351	81.4
How much solid food to give my baby	51	89.5	361	83.2
Knowing when my baby has had enough to eat	51	89.5	391	90.5
Giving my baby finger foods	43	76.8	362	83.2
Encouraging my baby to try different foods	52	91.2	417	96.3
Balancing milk and solid foods	43	76.8	349	80.2
Preparing meals for my baby	51	89.5	377	86.9
Making mealtimes enjoyable for my baby	47	82.5	400	92.0

### 3.3.5. Evaluating the Starting Solids workshop

Participants were asked how the workshop impacted upon their knowledge and confidence of giving solid foods. Table fourteen shows the number of parents who felt confident or very confident in the following areas:

**Table fourteen: Perceptions of the workshop (n = 57)**

	<b>N</b>	<b>%</b>
The workshop helped me feel more informed when introducing solid foods	55	96.5
The workshop helped me feel more confident when introducing solid foods	56	91.2
The workshop covered everything I needed to know when it came to introducing solid foods	36	63.2
The workshop made introducing solid foods to my baby a more positive experience	52	91.2
I am glad I attended the workshop	56	98.2

Participants followed up their responses with some brief reflections on the workshop and experiences of starting solids in an open-ended box. Overall participants very much enjoyed the workshops and found them very useful

*‘Thank you so much for free workshop, it was very helpful for me.’ (Mother, 28, prefer not to say, Started solids 34 weeks)*

*‘The facilitators were great. Learnt so much from them.’ (Mother, 29, Mixed or multiple, Started solids 21 weeks)*

Indeed, a number of participants said how the workshop increased their knowledge and confidence around giving solid foods:

*‘The workshop helped me feel less nervous about finger foods and it is something I am working on.’ (Mother, 34, Bangladeshi, Started solids 26 weeks)*

*‘Starting solids has been a very fun and messy journey. The workshop really helped me feel confident and enjoy the process.’ (Mother, 36, white, Started solids 21 weeks)*



However, although many participants felt more confident, some areas where they felt that they still needed further support included:

*'The biggest remaining challenges for me (and my partner) are knowing when the baby is full and knowing how to balance/time milk feeds around solid feeds.'* (Mother, 36, white, Started solids 27 weeks)

*'I could have had a longer session or more sessions. There are still some things I don't feel I know. Mostly around reducing milk feeds. I don't feel confident doing this. And how to monitor their weight when I begin trying to reduce feeds.'* (Mother, 39, white, Started solids 27 weeks)

*'I am still reluctant on feeding my baby fish, I have not started finger solids as yet, as baby still learning how to sit and chew food.'* (Mother, 34, Pakistani, Started solids 26 weeks)

Participants were asked whether they had any further suggestions for changes or additions to the workshop. Some of the suggestions for expanding the workshop included:

*'I would like to learn what to do when baby is choking.'* (Mother, 38, white, Started solids 26 weeks)

*'I think one area that could be good to cover in the workshop is how to help your baby take the spoon and use it themselves. Sort of halfway between finger foods and purées - guiding their own spoon with mashed or semi mashed food.'* (Mother, 31, white, Started solids 24 weeks)

*'The Henry course was excellent but more information about allergies would be helpful.'* (Mother, Mixed or multiple, 34, Started solids 25 weeks)

*'I think there's a lot to cover for one session while it was great and really informative I would have maybe liked a bit more info on preparing foods safely and how to give baby all nutrients if they are lactose intolerant or will be following vegan diet.'* (Mother, 34, white, started solids 24 weeks)

*'I wish there had been more on reducing breastfeeding as more solids are introduced.'* (Mother, 45, white, Started solids 26 weeks)

*'I think the workshop should cover baby constipation related to solids and importance of hydration.'* (Mother, 29, white, Started solids 26 weeks)

### 3.4. Part four: Interviews

Finally, eleven participants took part in part four of the study. An invite was sent out to 221 workshop participants who had a baby in the target age range. Eighteen participants responded and interviews were arranged with eleven who were able to take part. All participants who took part were mothers. Demographic details of participants are shown in Table fifteen. All names have been changed to pseudonyms.

**Table fifteen: Demographic background of interview participants**

Pseudonym	Age	Ethnicity	Number of children	Age started solids
Meera	31	Asian Indian	1	Just after 6 months
Rachel	32	White British	1	Just before 6 months
Francisca	36	White Brazilian	1	'Exactly' 6 months
Rana	29	Bangladeshi	1	6 months
Flavia	24	Romanian	1	6 months
Anna	37	Polish	1	6 months
Claire	33	White British	1	Around 5.5 months
Sophie	38	White British	1	6 months
Lin	42	Chinese	1	Just before 7 months
Safiya	35	British Indian	1	Around 6 months
Katarzyna	34	Polish	2	5.5 months

#### 3.4.1. When did mothers choose to introduce solid foods?

As we can see from Table fifteen, all mothers who were interviewed introduced solid foods at around 6 months old, with some starting a little earlier and some a little later, although no mother would be considered to have introduced solids 'early'. When asked what reasons led to them deciding to start at this stage, a variety of reasons were given. One of the most common reasons was that their baby had reached six months of age, and this was what was recommended by the NHS and other sources of information.

*'General recommendation of the age and I think she seemed very interested already. So, I mean, I didn't want to do it any earlier. So, I just thought we'll try it, we'll see how it goes.'* (Francisca)

*'Because the NHS recommends introducing at six months.'* (Rana)

Developmental readiness i.e. physical ability to sit up and self-feed foods was also common, and linked in with following guidelines. Mothers often talked about learning the signs of developmental readiness and their importance in the workshops.

*'It was pretty much informed by what to look out for from the HENRY workshop actually and I did an NCT workshop as well. And so, she was able to sit up and she we let her pick up the food and she was able to kind of chew it and swallow it. So yeah, that was, I guess, her being able to do that really.'* (Rachel)

*'So, sitting up, able to sit up in a chair, able to pick up food himself, sort of shown interest in wanting to like touch our food and pick up our food. Yeah, and able to, I guess, noting that he can sort of hold things in his mouth rather than just spit things out straightaway.'* (Sophie)

Reaching out for foods and showing more interest in family foods was also a common reason. Although this could potentially be seen as a spurious sign for earlier introduction, this fitted with signs of readiness given the age of babies at the time of starting solids.

*'I did see the inquisitiveness that my child showed when we were having food and when we were at the table'* (Meera)

*'Mainly because I felt like she will just keep looking at... Yeah, mainly that like, you know, she was just very interested in eating what we're eating. And she kept wanting to like, put things in her mouth from my plate, from my hand. And it just felt like, you know, she's giving me all the cues that she's gonna need to like, try some food. And that's how I started.'* (Safiya)

Sometimes more spurious signs were given that are not part of recommended reasons to introduce solid foods or need to wait to do so. For example, teeth were mentioned by three participants and the potential impact of solid foods upon behaviour such as sleep by two.

*'I also felt it was the right time because they start developing their teeth. And so, they need to have a bit of new textures other than just milk.'* (Meera)

*'I wanted to try and help her sleep better because her sleeping wasn't great. And I'd been told that once they start feeding the sleep should come with it as well.'* (Lin)

### 3.4.1. What foods were given as first foods and why?

Almost all first foods given were fruit and vegetables, in a mixture of pureed, mashed and finger food formats. Broccoli and carrot were again mentioned as common first foods.

*'I think it was an overcooked carrot baton, it was super squashy. I don't think she probably ate it properly. But and we also tried a few mashed sweet potato and mashed squash on a spoon or effective in terms of her actually being able to kind of swallow it but yeah, I think my first thing was a very soggy carrot baton.'* (Rachel)

Five participants specifically mentioned that they had chosen to give vegetables as a first food as this was recommended in the workshop over fruits which may have a sweeter taste.

*'One of the things that really stuck with me from the workshop was to do just veg for like two weeks, and not even fruit I think because it establishing that taste before introducing like sweet foods like fruit trying to kind of get the baby happy with a range of the vegetable tastes. I think we probably did, I don't think we did, anything that wasn't a vegetable for a couple of weeks. And then then fruits, but yeah, it was it was I mean, I pretty much followed that workshop to the letter.'* (Claire)

*'Because I attended the workshop and in the workshop it said that it's better to introduce vegetables first than then fruits because they will develop a taste for something sweet otherwise. It felt right to introduce vegetables.'* (Safiya)

Reasons for choosing a specific first food often focussed on perceived nutritional value. Fruits and vegetables were seen as being nutrient dense.

*Yes, it was just plain banana and apple purees. It was because of the nutritional value that the fruits contain. My child was also having a little bit of constipation, so I thought banana would be a good choice for that. And apple, it has got a lot of benefits. I mean, as everyone says, an apple a day keeps the doctor away. So, I thought that apple is something that wouldn't really you know hurt his tummy because it's absolutely new for him to go ahead with solids as he was just on breast milk and no formula milk, so I thought that would be a good choice.* (Meera)

Others chose foods that they themselves liked, either because they believed that their baby would also like it or because they were confident in preparing those foods for themselves.

*'Cauliflower - to be honest because it was something I like.'* (Francisca)

*'Avocado - Because I like it.'* (Flavia)

The shape of the food was also mentioned by three participants, specifically in relation to giving finger foods.

*Broccoli - I think partly because it was something that we could hold easily.'* (Claire)

### **3.4.3. How confident do mothers feel in giving finger foods?**

All participants noted that their baby was able to self-feed and often moved over to finger foods at around 8 – 9 months of age. Although some participants chose to use purees or mashed foods at the start, as their confidence grew they started to give their baby finger foods either on their own or alongside pureed and mashed foods.

*'With every meal apart from breakfast, we try to give her something to hold as well. So, finger food, so we are kind of spoon feeding as well. But we always try to give her some, a piece of carrot or sweet potato and broccoli, a bit of toast sometimes. And we bake some kind of, you know the tinned stuff so like mixer. I don't know what have we done recently, yeah like chickpeas and veg and that stuff and bake it in a tin. And so, she can hold it just to try and get her feeding herself. So, we tried to do a mix.'* (Lin)

Some of the participants preferred to stick to cooked, soft foods until their baby was older. Meat was frequently raised as something that was too 'tough' or 'chewy' for babies to handle.

*'I started giving him finger foods at around eight, eight and a half months. So, it, I just started with a boiled potatoes, boiled carrots, especially he liked carrots. So, it was boiled and cooled. So, it was a bit soft, but even though it was soft, it was finger foods. He was able to pick it up and kind of try and eat as much as possible. I didn't really force him. So, I gave him a bit of sweet potatoes as well boiled, but now he eats even raw carrots just cut into pieces he's able to eat like really bite them and eat.'* (Meera)

*'If it's like too much, then I still kind of feel like I should mash it. Like meats and things like that, I haven't given her, like chunks of it to hold. I've kind of blended it still.'* (Lin)

Others however gave a wider variety, although often this was focussed on more carbohydrate dense foods such as cereals, breadsticks and baby snacks.

*'We moved away from purees when she was about 7, 8, 9 months, nine months actually. So, I steam loads of veg for her. She has steamed veg, she has pasta, spaghetti, rice, and toast, as well as. And Weetabix as well in the morning. So, it's like a mixture. Sometimes it's like quite, you know, oatley types of cereal type things, most of it is finger foods though.'* (Rana)

Some worried that finger foods were not appropriate until their baby had teeth, although typically soon realised that their baby's gums were strong enough to manage finger foods.

*'At the beginning I was I was mashing it because like she didn't she didn't have teeth. But she didn't have teeth for a long time. So, she only started teething after she was one. So, then I was thinking, okay, she's got actually quite strong gums you know, and but I started, I puree it at the beginning and then I was like doing lumps in the puree, and then finger food.'* (Anna)

*'She'll have like a piece of steak or piece chicken and she'll just go for it. She'll actually manage to eat some of it which I find pretty impressive. Considering there's like half a tooth there.'* (Francisca)

A reluctance to allow their baby to self-feed because of the mess was raised by five participants. This was closely related to worrying about food waste and how much their baby was actually eating of a meal.

*'I'm gonna be honest, I don't always let her feed herself because sometimes it just, it's really messy food and I just don't have the energy. Especially with food that I know she's gonna take with her hand, and go like this, because she takes the spoon and goes like this [shaking gesture] and then, sometimes there's no food left in there and I go like, yeah it's not gonna happen. So, I do sometimes feed her myself.'* (Francisca)

*'The only reason that I was a little bit hesitant to let her feed her herself is just because of the mess.'* (Rana)

Others however viewed self-feeding as the much easier option. Babies could feed themselves, and it kept them entertained and engaged in the meal.

*'No, finger, is easy to keep. Broccoli is very interesting, like a tree. And is easy to keep like a grab. And this is the reason why I give her whole broccoli. Is not whole but pieces of broccoli. And finger pieces of carrot.'* (Katarzyna)

#### **3.4.4. What foods are babies eating?**

Participants were asked about their baby's likes and dislikes when it came to different foods. Almost all 'favourite' foods given were fruits and vegetables or yoghurt.

*'So, she loves banana, definitely. She likes butternut squash or sweet potatoes so anything orange and roasted goes down well. She Yeah, she went through a phase of liking sort of avocado but not so much anymore.'* (Rachel)

*'She loves yogurt. She gets so excited when the tub comes out and she knows what it is. Yeah she gets really excited. She likes. Yes, she loves broccoli. She likes sweet potato. There's not much she doesn't like actually. I think they're the things that she really likes. Those are the main things. There's not much that she really doesn't like.'* (Lin)

Notably, despite the common perception that babies should avoid 'spicy' foods, four participants described how their baby preferred stronger flavours, even rejecting a blander tasting version of the meal.

*'At the beginning I tried giving her chicken just like steamed chicken with no flavourings whatsoever. And she hated that. But now we flavour it a little bit. So, we give her like flavour up with a bit of turmeric and a tiny, tiny bit of chilli powder. She likes it, she absolutely loves that. So yeah.'* (Rana)

*'She likes the strong the stronger flavours.'* (Sophie)

However, some still avoided giving strong flavours

*'But I don't really, I've not much chilli. We made her, we have made her kind of dahl, and things like that. But we hold back on anything too fiery.'* (Lin)

Several participants brought up the subject of texture and how they felt that their baby was often drawn to the texture of a food rather than its flavour.

*'That's actually the other thing that we give her now which we probably wouldn't have given her early on, is like half cherry tomatoes. She likes as well and that now she can sort of eat them, that's good. She does like those. I think she probably likes the way that you can like the feel of them in her mouth maybe, rather than the actual taste.... She loves peas as well. Again, probably because the eating experience I guess.'* (Rachel)

Four participants raised the concern that their baby didn't seem to like 'mixed' meals where foods were combined together. When these foods were given as separate finger foods their baby would happily eat them, but the combination together was rejected.

*'He doesn't tend to like sort of a meal. So, if I put a few separate things on his plate, he's happier with that. If I gave him like, pasta with a sauce in it, or. Trying to think what I gave him last night. Like a vegetable stew with rice. He doesn't like things all mixed together. I think he likes to be able to sort of see what's on his plate. So yeah, so anything that sort of looks like a meal. Yeah, he doesn't like that.'* (Claire)

*'Anything we try to prepare her she like separate everything. Like vegetable, everything separate. For example, everything what I give her like we are eating. I give her separate pasta, separate sauce, separate vegetable and she's mixing. But when I give her whole dish, which we are eating, she's not very interesting.'* (Katarzyna)

The importance of being able to handle food was recognised by three participants. Mothers talked about how they felt that their baby benefitted from finger foods in terms of being able to explore the texture and how they felt in their hands. Their baby might not choose to eat much of the food given, but enjoyed exploring and learning more about different foods.

*'She very much touches her food. She feels her food. She explores new food. She brings it up to her mouth. If she doesn't want it, she says no.'* (Sophie)

In terms of avoiding foods most mothers in the interviews had offered a wide variety of foods to their baby, with little avoidance of specific foods bar those unsuitable for infants under one year of age such as whole nuts or honey. Salty foods were also avoided.

*'We've tried, I think pretty much everything that, there might be things that she's not had, but not because we've avoided it. She's had nuts in food. I obviously haven't given whole nuts but put bits of nuts in. And same for prawns. She eats fish, yeah, and she's peanut butter. I'm not avoided anything allergen wise or anything like that.'* (Sophie)

*'She's always loved cheese, but I guess that's because it's nice and salty, but we try not to give her too much of that because she will just eat anything like that.'* (Rachel)

*'I usually when I would I completely avoid salt and we're not eating salt. And I avoid that honey. Just for her. Sugar, usually I do not use sugar when preparing stuff to eat. And what else? I think, nuts. I just try blend her with like butter nut, I try blend her but not give whole. But the rest of them I start, I think I, she give everything.'* (Katarzyna)

One mother talked about being reluctant to prepare foods including meat because she often batch cooked and placed meal portions in the freezer for later. She was anxious about the process of freezing, thawing and offering foods with meats in them.

*'Yeah, so for a long time I've avoided giving her meat. Because it's really difficult preparing that and also I'm a bit hesitant about putting cooked meat into the freezer.'* (Rana)



Several of the participants in the study were vegetarian with some choosing to raise their baby this way and others deciding to let their baby eat fish and meat.

*'Meats, gosh she loves meat. My husband's vegetarian so he finds it very disturbing.'*  
(Francisca)

### **3.4.5. How confident do mothers feel in introducing solid foods?**

The interview questions explored how mothers felt when it first came to introducing solid foods and whether that changed over time as they gained more experience in feeding their baby. By far the most common concern, raised by almost all mothers, was the fear of their baby choking. This far eclipsed any concerns over the 'right' foods, portion sizes of their baby eating enough nutrients. However, concern for choking typically eased over time as mothers watched their baby confidently handle different finger foods. Learning to recognise the difference between choking and gagging was a core part of this. Although gagging often made mothers nervous, particularly at first, this again eased as they were able to spot the difference between the two.

*'Initially, I did have worries about a bit of choking, but now he's fine. He eats as much as he wants, and he knows that he has to bite like little smaller pieces. So, he's able to understand that he should not be putting everything inside his mouth. So once that realisation has come, I'm okay now, but initially there was fear of choking... As I saw him eat, understanding how to eat that's when my confidence increased.'* (Meera)

*Definitely. I think I was really, really worried about, I think like most mothers, about the choking and the gagging. So, I was really worried about that. But now I feel much better than, about that even though I still watch her eat, I won't, not, kind of, leave her. But yeah, I feel a lot more confident about letting her try something now and she's older so I'm just like, Oh, she'll, she'll know what to do now. Yeah.* (Lin)

Some were worried about getting the process 'right' and giving their baby the correct balance of different nutrients. Concern over their baby eating 'enough' was also linked to this. All participants who expressed this concern followed up by saying that the workshop had really helped ease their anxiety and increase their knowledge over this aspect and that they felt far more confident in letting their baby set the pace of meals.

*'I was petrified. So, I was so happy that actually I, you know, I could participate in the, in the workshop because that's my first baby and I didn't know how to do it. And even though we read all this stuff, you just didn't know and, you know, you're right about of the choking and I mean, what food is good, what is not good, and what you should start with the broccoli, or should you start with the fruit, and I was like I had really you know in my head I just like to really didn't know what to do. So, as I said, I was really happy, you know that because like the workshop kind of helped boost my confidence with it.'* (Anna)

*'I guess my only concern with the finger food element was that she wasn't really eating any of it, so much. So, like she would just kind of like to kind of maybe get a little bit down but not very much.'* (Rachel)

Some, with younger babies, were worried for the future. Although their baby was eating solid foods they were not eating large amounts, often preferring to breastfeed. Mothers knew that the main part of their baby's diet should be breast or formula milk at this point, but were concerned that their baby would never make the transition to having a family diet. Some worried about dropping feeds and keeping the balance right.

*'I think the only thing that I'm worried about still is knowing whether she's eating enough because some days she just throws things down. Some days, you know she's eating a load. The thing that keeps up and down. But I think because they say that the within the first year, like, main for nutrition is coming from breast milk, so I'm not too concerned about them. But I think I will get concerned about it when we go closer to her year mark because I'm like I don't know whether she didn't have enough. I don't want to give her a phobia about food and anything like that. I don't want to force food on her, but I don't know how to approach that aspect of parenting, yet.'* (Safiya)

Others were more concerned that the process of introducing solids would be more difficult and time consuming than milk feeding had been, especially if they were breastfeeding.

*'I remember saying I'm really kind of not looking forward to it because I'm worried that it's going to be a massive hassle and will be much harder than just breastfeeding. Breastfeeding is really easy to find it kind of you know, you don't have to remember anything, it's easy and so this kind of new world of like, yeah having to produce, make food and remember I know it's weird remember to feed your baby but like remember so it kind of gives them solids and stuff. Yeah. Was a bit daunting.'* (Rachel)

### 3.4.6. How skilled did mothers feel in supporting their baby's healthy eating?

Alongside knowing which types of food to offer, supporting a baby to grow into a healthy and happy eater involves support for broader eating behaviours such as satiety responsiveness and food acceptance. It was clear from responses that most felt confident in letting their baby lead the way with deciding when they were full, and not encouraging them to eat too much.

*'Yes, I let him convey that to me and he's able to show that when he's full, he nods his head, and he just doesn't open his mouth. So that's it. He's full. And when he wants more he looks at the bowl. He looks at his you know spoon and stuff and he what, he conveys that he needs more and he does eat when he needs it.'* (Meera)

*'I guess I sort of trust that he would let me know if he was hungry and sad about that. But if he seems perfectly happy, then I trust that he's getting enough nutrition from what he's eating. Yeah, I don't know. I'm happy to let him sort of take the lead.'* (Claire)

Sometimes mothers worried that their baby wasn't eating a lot of food, but referred back to the idea that their baby's stomach was about the size of their fist, and therefore meal sizes were naturally going to be small.

*'She doesn't eat a whole lot. Just a tiny amount most of the time. But that said she is really, tiny. I feel like okay, now if you eat like two spoonfuls, that's probably the size of your fist? So that's enough and I shouldn't stress too much about this.'* (Francisca)

*'I think she, she eats more than I expect and, but I don't have any concern. I think if, if she eat, if she needs. I don't have any concern because she eats the amount of food I expect because her palm is small. I expect she eat just a portion like that.'* (Katarzyna)

However, sometimes letting their baby set the pace could be anxiety inducing, especially if health professionals had raised concerns around weight or how their baby was eating.

*'One of the girls in my group went to a weigh in, and the nurse told her that the baby was eating too much, and she should drop a feed. That's made us all go oh my god, are we feeding too much or too little? I still worry actually that she eats too much and she doesn't know when to stop. I said to my partner last night, is she eating too much, do we need to stop her? And he's like, I think just carry on. He's not sure either, but, she knows when to stop, she tells us, and she gets. But then I'm like, is she stopping us too late? If that makes sense? So she'll push the plate away or just turn away, start playing with a with a food and with a spoon and things. So, but I'm like, Oh, God, is that too late should that's what she's telling us. But does she actually know? Have we stretched her tummy, if that's possible? Or too much already? I don't know?'* (Lin)

In terms of food acceptance, most mothers were happy that their baby was eating a variety of foods and experiencing different tastes.

*'He does have some favourites. As we are Indians, we are vegetarians, we eat a lot of rice, lentils, and Indian breads, like roti. He's, he's a good eater. Not a very big quantity. He kind of eats less, I would say for his age, but he's not a fussy eater. He doesn't like a few vegetables, in particular. He doesn't like capsicum. I tried to give him bell peppers but it's probably because it's got a peculiar taste. So, he tries to eat, he's very curious to try and see whether he likes it or not. So, I try and give him everything possible that we eat, but with less, obviously less salt, less sugar, less spices and stuff. So, he tries to, tries to see whether he likes it or not. So, in that, that way I'm kind of lucky.'* (Meera)

Some mothers noted that this was not a linear process, with their baby seeming to like certain foods and tastes but then becoming fussier for a period. When mothers were able to step back and let their baby work through this rather than forcing them to keep eating certain foods, they noted that their babies naturally appeared to start trying different tastes again.

*'I'd say, a couple of months she started to be picky. So yeah, so she she's she I mean she had a period where she preferred fruit rather than vegetables. But now she's quite keen on vegetables again. So yeah, so she, she, quite likes like we do pasta or rice with vegetables, because we're vegetarian, as well so we don't really eat meat. So, it's like lots of you know, lots of veg.'* (Anna)

Notably, several mothers raised guidance to keep trying if babies didn't like a food at first, with some offering it in different presentations or recipes to encourage their baby.

*'She used to experiment by like picking out like a salad leaf and eat that. But then doesn't wouldn't sort of, I guess eat that raw. But if I put it in a fritter or something, then she will happily eat a spinach fritter was not on its own... I guess she's not, she'll eat sort of bits of small bits of fish but just doesn't seem very fussed about, occasionally given like a little bit of chicken or bit of meat. I guess that's just hard for her to kind of chew and work on, so she doesn't seem that interested in that kind of thing.'* (Rachel)

*I think if I did give her new foods, she probably will be a bit suspicious and you could give it to her again and again and again and then she'll get used to it.'* (Rana)

Even when babies were naturally suspicious of new foods, mothers recognised the importance of them experimenting and playing with foods, even if none was eaten. Again this was an approach mothers learned in the workshops.

*'Yeah, he's definitely suspicious of like, even the sight of a new food because I will offer him, like, vegetables with every meal. But he'll sort of prod it. He likes to sort of prod things or like squish them, but he won't put it anywhere near his mouth.'* (Claire)

*'She doesn't, she doesn't eat bread yet. That's the blank. She wants to eat and I can see she puts it in her mouth, but I think the bread is a little bit different to understand and eat. But we will continue giving it to her until she's able to eat it.'* (Safiya)

Others talked about the importance of introducing vegetables first in order to encourage babies to eat foods that are typically a little more bitter tasting. Introducing fruits first was thought to encourage preference for a sweeter taste that would be harder to come back from.

*'They mentioned in in the workshop that it's best to start with the with the vegetable too. Like make them you know, broaden their tastes, and make them to you know, to like stuff before you introduce like sweeter food because, yeah, that never was right because like obviously she likes fruit. With vegetables, yeah, she's doesn't know what to expect obviously because that was all new for her. I just wanted to have I just wanted to start you know healthfully and vegetables have left less sugar and I wanted her to eat healthy as well. So, I was really focused on that, especially that like because of my health background I suffer from eating disorder. So, I really wanted to get it right with her. So yeah, there was there were a few reasons for that, but that's I think we started with vegetables.'* (Anna)

Sometimes techniques to encourage babies to eat were used, that may lead to babies eating more food but could potentially develop into unhealthy eating habits if used more frequently.

*'I used to give her Weetabix every day. And then she kind of got sick of it, I suppose, having Weetabix. But since she, a few weeks ago, my husband suggested putting honey in it, and I never put the honey or sugar in it before. So try that, see if it actually works. Yeah it actually worked. She's never had anything like really sweet like that. So, we put a bit of honey in it and now she loves it.'* (Rana)

Finally, some mothers talked about not wanting to pass on what they perceived as being their own unhealthy eating habits, or difficulties with eating to their baby. This led them to try to be more laid back around their baby, encourage them but not pressurise them to eat foods, and expose them to a broad range of foods if possible.

*'I'm very picky. I'm still very concerned about her turning out to be very picky as well.'* (Francisca)

### 3.4.7. Shared meal times and family foods

All mothers who took part in the interviews described how they ate with their baby for some meals during the day. Sometimes babies joined in mealtimes and other times they simply sat at the table, watching what was going on. This often encouraged babies to try some of the food that others were eating.

*'Right now, she eat everything what I eat. I don't, I don't cook special for her. She is, she eat everything what we, what we are eating at home. And for example, yesterday was soup, for her I take from the soup vegetables on the plate and drink soup, not use a spoon, just drink from a cup. And rest of time, she's eat with us.'* (Safiya)

*She wants to eat with, with all family. And she eat every time when we put like, sometimes I eat. She eat only with me, or sometimes she's with me and husband and when visitor or somebody come. She loves this.* (Flavia)

Many mothers raised the challenge of eating together as a family in the evening. Often, partners were home late from work, or parents did not want to eat earlier with a baby who was going to start the going to bed process at around 6 pm.

*'She has dinner at 5pm and no one's going to eat at 5pm, and so she has that by herself.'* (Francisca)

*'But yeah, we try and try and we were trying to eat with her as well. We were all sort of eating together and on the weekends we do but in the evenings that sort of quite difficult to do together. Yeah. Try and give her the same thing. She is, she's at nursery four days a week so they all eat together, which is really nice.'* (Rachel)

Some mothers talked about how their baby eating with them and sharing foods had encouraged them to make healthier food choices, or keep more regular mealtimes themselves. Starting solids had an impact on the whole family's way of eating.

*'My partner said, you have to start eating properly as well because I'm still going, you know, days on like, not eating properly or not eating at all. And he said, he said because we're talking about how, you know, how attentive she is and like how she, you know, observant. She, she, looked at everything and he said she is going you know, it doesn't matter. He said to me and I know he is right that you know you are going to cook healthfully for her if she she's still looking at you what you're eating.'* (Anna)

However sometimes concerns around the content of family foods put parents off sharing foods directly with their baby.

*'So far, she's just been doing separate. We haven't, because we have to avoid salt, I haven't quite figured out how to do that yet. Because intuitively I add salt on all the food that I cook.'* (Safiya)

### **3.4.8. How do mothers feel about ready-made baby foods?**

All mothers in the interviews offered their baby home cooked foods, but most also used a small proportion of ready-made commercial foods in their baby's diet. Typically, these were snack-based foods such as crisps, puffs and yoghurts and often eaten when out of the house.

*'I didn't really ever use the purees that you can get for, as baby food.. but if we're going out on the weekend, then we'll kind of take one of those, so yeah, she does have those and she does have the again, like various different of those sort of puffs of sticks or whatever, when we're out and about... (it's) a case of not having to have prepared something to take out with you. You can just like grab it and go.'* (Rachel)

Indeed, convenience was the primary reason for using ready-made foods. These items were seen as quick and easy to use and removed the need to take foods out with you. It was notable that although many babies shared family meal times and family foods when at home, this did not appear to be the case when out and about.

*'In the beginning I did a mixture of making my own purees at home and then giving her store-bought purees. And even though they were really expensive, I feel like when we were on, when we go to people's house like my in laws or my parents' house, houses. Or for generally like travelling and stuff it's so much easier giving her, back in the day it was so much easier to give her the store-bought foods because you just open the jar and that's it. Whereas the puree you have to think about it a lot more, put in the freezer, and thaw it out and especially when we're going. We went on holiday, when she was about six months. So, it was practically, is much, is much easier to do store-bought, but we didn't do it for long after she moved on to finger foods for about eight, nine months I haven't bought anything that's store bought for her.'* (Rana)

*'Pouches. So, if we go out, then we've got like about five of them in the cupboard. And they're there for emergency. If we go out, we'll just take one with us, just in case. I have actually started taking cooked food with me and defrosting it and cooking it and put it in a flask. But I will also take a pouch just in case she's hungry or whatever.'* (Lin)

The impact of shop bought finger foods acting as a distraction when out and about was also raised, although a reluctance was often expressed at having to do this.

*'I mean, generally they're relied on if like we have a journey somewhere. And I worry that he's going to. Yeah, that he's going to need some sort of distraction on the journey. And I guess, I mean, I don't think it's a great idea to use food as a decoy. But yeah, sometimes just to keep him quiet.'* (Claire)

*'If we are on the go when she's kind of getting really kind of antsy, and so we give her those puffs.'* (Francisca)

Baby foods such as puffs were often seen as healthier than their equivalent 'adult' snack food such as crisps.

*'She has corn snacks... Because in in our house, we have another child also and every time she like to eat this, this crisps so my daughter see how this girl eat so I choose for her also.'* (Flavia)

The difference between shop bought and home-made foods was raised a few times during the interviews. Several parents discussed tasting shop bought foods and noticing a difference either in terms of how sweet foods seemed, or conversely how lacking in flavours and spices they were. Sometimes mothers adapted these foods to make them tastier.

*'We have tried yoghurt pouches and pureed food like apple, parsnips and carrots, and stuff like that. Sometimes we have tried that. Not every day we are able to, like, you know, defrost things in time and things like that. Those have always been ahead, but I have tasted them, they're definitely more sweeter than the stuff that we make at home, probably something like that has got sugar in it as well.'* (Safiya)

*Yes, when he was slightly younger. I tried the ready-made purees. And now occasionally, I try giving him the pasta and stuff, that's a ready made one. But what I do is I don't give him the bland version, because we like eating food that is not very spicy, but not very bland. So, what I do is just put very minimal of just a pinch of salt, a pinch of like the other stuff that we use a little bit of turmeric in it.'* (Meera)

However, Katarzyna noted that she did not give readymade baby foods as she had read the ingredients and didn't like the high levels of sugar found within many foods.

*'No I don't use them. Because I read what was inside ingredients and it's, everything is with sugar but it's like hiding sugar. It's like concentrate. And I don't want to teach her the taste of the sugar.'* (Katarzyna)



### 3.4.9. Did mothers enjoy the experience of starting solids?

Starting solids is often portrayed as an exciting or 'different' step to take after months of only milk feeding. When mothers were asked to reflect on how they felt about starting solids, the results were mixed. Many expressed that they were excited about starting giving their baby solid foods, and did enjoy the experience.

*I have found it quite an enjoyable experience. And I do think the workshop probably helped because it just helped you think about it in quite a relaxed way and think, and think, about it as to how you can make it fit in. Like with the family foods, for example, rather than worrying if my daughter doesn't eat what I've made her, I try and give her like selection of things to eat at that meal. But if she says no, I don't just go and cook a whole other meal.' (Sophie)*

However, sometimes it felt like an anti-climax, especially if babies were more reluctant to take to eating solid foods. Dealing with the additional mess could also be stressful.

*'I did read a lot about it before. I think we're always very excited about this kind of stuff. And then it happened, and it actually turned out to be really boring, to be perfectly honest. What I was feeling when I was kind of excited, I was very, very excited about it, to be honest. I was kinda really look forward to giving her solids and I think I had an image in my head, that she'll just take something and go ahh yes I love eating. It's not going to happen. Hahaha.' (Francisca)*

*'I didn't realise how much stuff when I knew it will be messy because I've seen other babies eat. I just didn't realise, like, how much it would bother me, but it did really bother me. I was really surprised by it actually. That the mess of the floor and everything is bothering me that much.' (Safiya)*

For others however, enjoyment increased as confidence built, especially when concerns around choking started to ease.

*'I mean, the main concern was just choking. I mean, that was the, you know, the main thing I was quite excited it was you know, as I said at the beginning, it was like I was scared, thinking about doing it. But then it's actually quite fun experience, you know, when you are assured and when you have this knowledge and when you kind of know what you are doing.' (Anna)*

### 3.4.10. How did mothers feel about the Starting Solids workshop?

Mothers were overwhelmingly positive about their experience of taking part in the workshop, and how it affected their experience of introducing solid foods to their baby. The workshops were viewed as coming at a useful time and provided a haven of good information and support at a time that was often busy and full of challenges and questions.

*'I want to say congratulation for HENRY because they do all this programme. It really helped, really helped. And I think everything was the, was nice, so I enjoyed it.'* (Flavia)

*'It made the experience of introducing solids more enjoyable.'* (Meera)

*'I was really glad that I attended. There was so much going on at the time. There was no space to read anything, even though I listened to the podcast, I don't think I could have done anything else more. So, it was actually really helpful to be able to attend something.'* (Lin)

Overall, the workshops were seen as informative and including all the information needed to introduce solid foods and work through the next stages.

*'They introduced the first like, all information, information, which I need for the first step. For example, which food need when, when you need to, to introduce a solid food or what type of solid food you need to introduce.'* (Flavia)

*'I would say that, I basically went in knowing nothing and it made me a little bit more confident in that small, I think it was half an hour, if I'm just right, of attending it. And that, that in itself is a huge thing in my opinion.'* (Safiya)

Almost all mothers described how taking part in the workshop helped increase their confidence around giving their baby solid foods.

*'I had very less confidence when I started solids and that was the main reason why I took part I wanted to attend HENRY work solid, starting solids workshop. That gave me a sense of insight into how, you know, I can go about starting solids or kind of transitioning him from purees to a little bit of, you know, finger foods and stuff. So that was a really good workshop that I attended. So, the confidence has, the confidence increased from that workshop. I had very little confidence before that. But once I attended the workshop, I took a lot of points from it. And over time, my confidence has increased.'* (Meera)

Increased confidence specifically in relation to introducing finger foods and being able to identify the difference between choking and gagging was often raised.

*'I think the best thing that I learned from it was how to introduce finger foods because that was the most scariest part for me. How do I go about introducing vegetables as vegetables and not as purees and stuff? Because I want, obviously every mother wants their child to like, understand what vegetables and fruits are, and, you know, you want them to eat all of them because of the nutrition that it gives. So that was one thing that the workshop made it easier, like how to introduce a toast or vegetables cut into pieces, or like you boil them you make small pieces you just so that was one thing that made it more easier for me to kind of introduce an all the veggies and fruits because till then I was just giving him purees.'* (Meera)

*'And, yeah, so in that element [introducing finger foods], I did feel really confident. And I think it's nice to sort of have, to be equipped with that information because then you just, you kind, of and I think it was nice to be equipped with information that just because they're going cough cough, doesn't mean they're about to die.'* (Rachel)

Information about which foods to give and how to offer a balanced diet was valued by many of the mothers in the interviews. The information was seen as straightforward and useful, helping mothers to work out which foods to offer their baby.

*'What the HENRY workshop did really well was start by having a really kind of good well, actually, I think they started probably with the discussion, but there was a level of, I don't know what the word is like teaching or imparting knowledge or kind of saying look, this is what is recommended now that you can do and these are the types of foods and these are the types of portions and this the timing and everything and these are some rules that you can follow.'* (Rachel)

*'I think, there was one picture with a plate and what we can do and what we can put on the plate, like for examples, and which kinds of group of food. And right now it's on my fridge. And I trying to follow every meal I try have a three groups of the foods. And because for example, for me potato is a vegetable but it's not. It's like it's different. It's different kinds of food. And right now I know, when it's meat and potatoes need be something else like for example, carrot or cucumber.'* (Katarzyna)

Another common area that was highlighted was in relation to encouraging babies to try new foods, and to not give up if they rejected them the first time.

*'It gave me confidence to try different foods because they homed in on the message that even if your baby doesn't like it the first time around, try, try, try again.'* (Rana)

*'I mean like they said basically to try everything 10 times, you know, like, before you make a decision that she doesn't like it. Which has helped us a lot because I don't think I would have done that myself. I would have been like okay she doesn't like it, we'll try later or something like that. Maybe don't do that. But it has made me a bit more consistent. Trying, like even with the daal thing, she likes daal, but when we first made it, she wasn't a fan of it but now she likes it a lot.'* (Safiya)

Linked to this was the reassurance that introducing solids was a gradual process and not to focus too much on how much your baby was eating, or if they had some days when they did not want to eat a lot. Mothers felt more confident in trusting their baby and not worrying too much about amount consumed.

*'What the starting solids workshop did really well was to talk about introducing solids and also like not what not to give at that point... information around then what happens to try and almost like reassurance that you don't have to, you know, it's a very, very, very gradual process to move fully onto solids. And just because I think the other thing is, it's just because your baby say doesn't want dinner, and just has milk feed it's fine. And if your baby doesn't have dinner for a week, that's also fine.'* (Rachel)  
*'They talked about sort of expectations about, like, how much the baby would eat, that was quite helpful. And, yeah, just about sort of offering like, a range of food and not sort of worrying about how much they're consuming at first, because it's a gradual process. I think it helped me to feel more competent, because my little boy, he wouldn't really be spoon fed and it felt like a lot of people I knew were spoon feeding their babies. But in the workshop, they talked about baby led weaning and sort of giving them finger foods. And so, it felt like that was an okay route as well.'* (Claire)

The information and support give by HENRY staff leading the workshops was seen as accurate and helpful, with mothers expressing how much they trusted the information. Starting solids was often seen as a confusing time with a lot of conflicting information, but participants felt reassured by the information they were given.

*'I was really stressed with starting the whole process, but it really helped me and I just sat down with the materials later on as well, and I just read. I mean, you know, people who know what they're doing, if they are saying this and this there is no reason for me to panic., I really appreciate that actually, because I knew as well if anything can go wrong, I could email as well. So, I felt like I have this you know backup.'* (Anna)

One reason why mothers felt more confident from attending the workshop was that it was seen to be an informative, evidence based and reliable voice amongst the sea of opinions and

information they often received from friends and family. Mothers often found it confusing and overwhelming to be given conflicting information and felt that they could trust HENRY.

*'Yes, obviously, my first child, you know that fear is always there, whether I'm doing things right, whether I'm not, whether I'm doing something not right. Am I harming him? Am I doing something that will cause any trouble to him? So that kind of fear was the first thing that was there. There are a lot of people telling a lot of different things like do this, do that... a lot of different people telling their own, how they brought up their kids and what they fed their children. So, there's a lot of confusion with it. Especially as a first-time mother, I had no confidence.'* (Meera)

Indeed, sometimes mothers ended up spreading the information that they learned from workshops to family and friends, feeding back new information or changes.

*'I remember talking to my mum who was around at the time, giving me help at home. I remember sort of reporting back on the things that I'd learned from the workshops because, I think when she was bringing us up, there probably wasn't as much information, maybe it was different. She was quite kind of surprised about some of the things where I was like, No, it's okay to, you know, to do that.'* (Rachel)

### **3.4.11. Would mothers recommend the workshop to others?**

All mothers were in full agreement that they would recommend the workshop to other parents, and often already had to their friends and family.

*'It should be kind of standard for every new parent.'* (Anna)

*'Yes, I'm very happy. I was on baby group, and I always said if someone has concern, I can recommend HENRY and right now it was very big queue.'* (Katarzyna)

*'If a girl in our group is struggling to feed her baby. We have actually all said you should just go to a HENRY workshop and just get support, and they'll give you individual support.'* (Lin)

In particular participants felt that the workshop would be useful for first time parents or those who wanted to know more about the basics of introducing solid foods.

*'Definitely, yeah. I'd recommend it with, to parents who don't know anything about starting solids. Especially people who are a little bit apprehensive about it, because it just helped to make it.'* (Rana)

*'Yeah, I think so. I think it could be, I guess, if you've not done reading before, like it'd be really informative, but also, yeah, I think there's just there's a lot of conflicting information online or, or, you know, people seem to have certain agendas of like, a certain way of feeding is a better way or so I think it was just really helpful. To have that sort of like, unbiased advice.'* (Claire)

### **3.4.12. What improvements would mothers like to see?**

Mothers were universally complimentary about the HENRY workshop. There were no criticisms around the content with many having no suggestions for areas of additional information or support. When recommendations were made, these were additive i.e. more content and longer sessions. In particular participants wanted further diet related information for later in childhood when their baby would be past the 'starting solids' stage and into eating family meals as a toddler and beyond.

*'I wish it was actually longer because it was I feel like you could have been a bit longer okay stuff in it.'* (Francisca)

*'Something that they could have covered is kind of introducing other varieties of food after a year, probably like after the child turns one or one and a half. What is the best thing that you could give to your child... So probably things that could have been covered is what food can be given to a child whose one year plus or between 18 and 24 months or what could be given as drink other than just milk? So that could have, like fruit juices or something like that. That could have been a little bit better.'* (Meera)

However, participants recognised that focussing on older children could be overwhelming for parents with younger babies. Several suggested that a further workshop could be developed by the team to cover feeding toddlers and older children's diet.

*'I think it might be quite overwhelming to talk about, like toddler feeding when you're just thinking about introducing solids for the first time. But like for me, it would have been helpful to know more about the kind of like, up and down nature of introducing solids. And just thinking about all the things that can disrupt it, like when they're poorly or teething and that you know, it's okay if they might seem to eat, like, barely anything, but that's quite normal sometimes. Yeah, I think but that's further down the line, so I don't know if that would be too much. That might have been too much for me to hear at six months. But yeah maybe they need to do a toddler feeding workshop.'* (Claire)

Others wanted the information to continue over time, not necessarily through additional workshops but perhaps through follow up emails or a social media account that acted as a follow up, providing further information as their baby grew.

*'I think it was a really good workshop. The thing I would say is that having a way of, kind of, continuing providing the information and I don't know how easy that is because I wouldn't have gone to multiple workshops. But I have been probably, probably, two or three times a week I'll go on and look on Instagram and get inspiration from that. But I don't know how easy it is for government funded resource to do that kind of thing. But I just think, some way of, kind of drip feeding and keeping you on track with thinking about the healthy options.'* (Sophie)

Finally, three mothers raised the possibility of HENRY running a specific first aid workshop around introducing solids, focussing on what to do if babies did choke.

*'What I would really like is an actual first aid workshop. Yeah, that would be really, really useful. I have information now, like, we look if she's gagging, we wait for her to finish gagging, wait for like, you know, we see that she's active like, you know if she's a bit like confused we like, we see that, and then being choking, like you know whether she's still coughing and things like that. We look for cues, but I still feel still not confident about it, as I would have felt if I had attended a workshop specifically for it.'* (Safiya)

## 4. Discussion

This evaluation explored the impact of the HENRY Starting Solids workshop upon the knowledge, confidence and decisions of parents and carers around giving their baby solid foods. Conducted and evaluated during the Covid-19 pandemic, the workshops were overwhelmingly considered to be an excellent preparation for starting solids, increasing knowledge and confidence around timing, signs of readiness and offering a wide range of different tastes and experiences. The workshop supported parents and carers to wait until around six months, to keep breast and formula milk as the main part of a baby's diet and to offer a varied diet in a responsive way. Importantly the workshop was viewed as informative, supportive and non-judgemental, and the majority would recommend it to others. Suggested improvements to the workshop focused on additional content and duration. This final discussion section considers the implications of these findings including the value of rolling out the service more widely.

## 4.1. Timing and readiness for solid foods

Overall parents and carers were generally knowledgeable around the basic elements of starting solid foods before attending the workshop. Pre workshop 87% could correctly identify six months as the recommended time to introduce solid foods, rising to 97% post workshop. Knowledge also reflected intended behaviour with 85% planning to introduce solids at around six months before the workshop, rising to 91% post workshop. Knowledge around milk remaining the main source of nutrition was also strong, again increasing further post workshop. Instead, it is likely that participants attended for more detailed information around starting solids such as what foods to give, how to balance milk feeds and how to make mealtimes enjoyable.

When it came to introducing solids, only 70% of those who completed questionnaire three did so at around six months, although all mothers in the interviews had delayed solids until around this time. Two thirds of participants in survey three credited the workshop with encouraging them to delay solids until around six months but given many were already aware of this guideline, it is likely that those who did not feel that it affected their behaviour were already planning to do this. Although some parents were giving solid foods earlier than recommended despite the workshop, the proportion delaying until six months is still much higher than that in many studies. For example in the UK Infant Feeding Survey only a quarter of mothers reported waiting until around six months of age,<sup>20</sup> although those who completed latter stages of the survey and interview may have been more motivated to follow guidelines.

It is possible that despite good knowledge other influences affect timing of introduction once parents get to this stage. Although a small number of babies were viewed to be developmentally ready for solid foods before six months i.e. being able to sit up unsupported, most reasons given for starting solids early were based around spurious signs of readiness such as being hungry after a bottle, placing hands in the mouth or to reduce reflux. It should be noted however that these signs were in the minority and that the proportion who took part in questionnaire three was a relatively small sample.



These spurious signs of readiness for solid foods are common, particularly in relation to perceptions of hunger.<sup>22,23</sup> Often these 'hunger signals' are simply normal infant developmental behaviour (such as waking at night) or a request for other needs to be met (such as close contact with a caregiver).<sup>36</sup> Increasing research shows that introducing solid foods early<sup>39</sup> or practices such as giving more solid foods during the day or before bed<sup>40</sup> or infant cereal in a bottle (which is not advised for safety reasons) do not improve infant sleep.<sup>41</sup> Moreover, the notion of solid foods meeting increased infant hunger often fails. First foods are typically low in calories but high in bulk. If an infant is given a large volume of a low energy density food, filling their stomach, this risks a lower intake of milk and ironically potentially greater infant hunger and night waking.

The workshop reduced perceptions of these spurious indicators as a sign of readiness for solid foods. Although perception of these signs was relatively low across the sample before the workshop, this further dropped after taking part. Two spurious signs in particular were more common. Pre workshop around one in seven participants stated that feeding more often was a sign of readiness for solids, dropping to one in twenty-five post workshop. The largest difference was seen for a baby 'watching you eat' as a sign they were indicating readiness, dropping from half of participants pre workshop to a quarter post workshop. This level is still high, and it is possible that participants are interpreting this within other indicators such as being physically developmentally ready. There is a difference between a younger baby watching a parent and a six-month-old baby physically reaching out for food or trying to move towards it. However, this significant drop is a very positive outcome of the workshops.

Alongside a reduction in spurious signs of need to introduce solid foods, the workshop significantly increased the number of participants who could identify the signs of developmental readiness for solid foods. Although most participants recognised that a baby being able to 'stay in a sitting position and hold their head up unsupported' was a likely sign of readiness for solids, few had considered more specific eating skills such as being able to pick up food or manage food in their mouth once they had placed it there. Indeed, pre workshop just 12% could identify all three signs but this rose to 87% post workshop. The workshop helped participants see this set of skills as linked together and being more than just able to stay in a sitting position. It consolidated the idea of being 'ready to eat' which helped

foster perceptions of starting solids as being a physical and developmental skill rather than something that happened at exactly six months or was related to behaviours such as waking at night or being a certain weight.

## **4.2. Food choices and variety**

In terms of which foods to give infants, a strong theme in both the interview and questionnaire data was the decision to introduce vegetables as a first food, specifically as an alternative to fruit. Fruit was considered to be sweeter and giving it as a first food risked fostering a preference for sweet tastes, potentially affecting later food acceptance. In the seven day food diary in questionnaire three, almost all participants offered vegetables daily compared to around three quarters offering their baby fruit every day. When first foods were described in questionnaire two, vegetables predominated, particularly broccoli and carrot. A number of participants recalled the messaging in the workshops to follow a vegetables first approach and were subsequently following this guidance.

Evidence regarding the benefits of introducing vegetables first, which are often more bitter tasting compared to fruits and other foods is growing in the literature. For example, one study found that babies introduced to vegetable purees had a higher intake of vegetables in an experimental setting compared to those introduced to solids using fruit purees. At 12 months the babies introduced to vegetables had a higher intake of vegetables in their diet, although this difference disappeared by 24 months.<sup>42</sup>

A low vegetable intake is associated with an increased risk of cardiovascular disease, hypertension, stroke and cancers.<sup>4</sup> Vegetable intake remains persistently low in adults and children, particularly teenagers.<sup>43</sup> Humans are naturally drawn to foods that taste sweet, such as fruits and foods with added sugar, as they signal energy to the primitive part of our brains that have not caught up with food being far more accessible than it was to our ancestors. Vegetables in contrast are relatively low in energy and combined with their more bitter tastes may be less appealing. Introducing vegetables first at this early stage not only removes any comparison with sweeter tastes but introduces foods that might be considered less palatable at a stage when infants are more ready to accept new tastes. Towards the end of the first year the concept of 'neophobia' often kicks in, where infants become naturally more hesitant

towards new tastes, in part due to their increased mobility and opportunity to ingest noxious substances. Introducing new foods during this period can be more challenging.<sup>44</sup>

Although a vegetables first approach is evidence based, some parents expressed a little concern over introducing fruits and their babies preferring these flavours. In a few cases parents appeared to be classifying fruits as being similar to processed foods with added sugar. Some parents may benefit from further consideration that although fruits are sweet tasting by nature, they do offer health and nutritional benefits (i.e. vitamins, fibre) and are distinct from sugar dense foods such as cakes and biscuits. Sugar and sweet tastes are not inherently 'bad' but developing a preference for sweet foods was a clear concern amongst parents. Balance is needed.

On this note, intakes of foods that are high in added sugar such as cakes, fruit juice or squash were low with parents keen to avoid these foods and tastes. This echoes existing research showing that parents often worry about giving 'bad' foods to their baby, focussing on a need to give their baby a balanced diet.<sup>45</sup> Many feel concerned about getting this right and ensuring that their baby has sufficient nutrients.<sup>46</sup> For this reason many participants aimed to provide home cooked meals for their baby as much as possible, echoing research that found that parents place a lot of importance on fresh home cooked foods for their baby.<sup>28</sup>

However, commercial baby foods still played a role in most babies' diet, although the workshops did change awareness of home cooked versus commercial baby foods, increasing the proportion of participants who planned to give their baby mainly or all home cooked foods from 71% pre workshop to 85% post workshop. In questionnaire three 53% of babies consumed commercial baby foods, although the majority were still having a variety of home cooked foods. In the interviews all mothers apart from one used commercial foods as part of their baby's diet but typically these foods were used when out and about for convenience rather than a food that was commonly eaten at home. This reflects previous research with highlights the convenience of commercial foods when out of the house or exhausted at the end of a long day.<sup>28,47</sup>

Notably, although snack food intake was low, in the interviews mothers talked about offering their baby 'baby crisps' and 'puffs'. It appeared that a distinction was made between these

foods and 'adult' crisps. This is an interesting finding as research typically shows that many parents strictly avoid giving their baby snack or 'junk' foods, suggesting that these 'baby' products are not viewed in the same way despite many similar ingredients.<sup>29,46</sup> Just one mother in the interviews raised the high sugar content and sweet tastes of many commercial baby foods which may suggest a lower awareness of these issues.

There is growing awareness of the high sugar content and ultra-processed nature of many commercial infant products, although parents may not yet realise the true content of baby foods despite reading the labels.<sup>28</sup> Products such as 'puffs' may be marketed as being designed specifically for babies but are still an ultra-processed product with little real nutritional difference from similar adult snack products. However, marketing techniques appear to convince parents that these products are different and necessary.<sup>24</sup> Indeed, one mother in the interview did not want to give her baby the same crisps that an older child was eating so gave this type of product instead.

Research examining the content of baby and toddler snacks has found that many are high in sugar content,<sup>48</sup> yet many products have labels promoting items as 'healthy'.<sup>24</sup> Sugar content is exacerbated by the processing of foods to produce infant purees. Blending foods in this way releases the sugar from its cells, increasing how much is absorbed and reducing the fibre content.<sup>49</sup> This process creates 'free sugars' which have been associated with overweight<sup>50</sup> and dental decay<sup>51</sup> in toddlers and children. Mashing home cooked foods at home is unlikely to have the same effect as factory grade fine processing. The World Health Organisation<sup>52</sup> and British Dental Association<sup>53</sup> have both raised concern about the high levels of free sugars many babies are eating via commercial products. This is increasing awareness of the content of such foods but they are clearly still widely used. Further education may be needed around ignoring marketing strategies and focussing on food labels in the same way many parents would for 'adult' snack foods.

### **4.3. Confidence in starting solids**

It was clear that despite many of the participants having good knowledge around core aspects of starting solids such as when to start and signs of readiness, many were not feeling confident about the wider process of doing so before they attended the workshop. Low confidence was

common for almost all aspects of starting solids including which foods to introduce, how much solid food to offer, preventing choking and making mealtimes enjoyable. This reflects research that shows that parents can find starting solids an anxious time, worrying about getting it 'right' and finding trustworthy information.<sup>37</sup> Although some parents feel confident in the 'basics' such as when to start solid foods, many feel far less sure around aspects such as what foods to give their baby and how to support the development of healthy eating habits in the longer term.<sup>36</sup>

To some extent this would be affected by the nature of the participants. Parents who feel less confident about starting solids may be more likely to sign up to a workshop about doing so, whereas parents who feel more confident are less likely to attend. However, the workshop clearly met this knowledge gap; confidence significantly climbed across all aspects of starting solid foods after the workshop. Whereas before the workshop around a third to half of participants were confident across different elements of feeding, this rose to over 80% on all indicators post workshop, with many exceeding 90%. Clearly participants were gaining far more from the workshops than the simple indicators that are often used to measure whether parents are following healthy weaning practices such as timing of starting solids. Timing of introduction obviously matters but other elements of the experience are far more complex and important than that indicator alone and these findings very much illustrate that.

Notably, confidence fell a little for participants during the third survey compared to the highest rates post workshop. There are a number of potential explanations for this. First, the sample size in questionnaire three was relatively low compared to the pre and post workshop questionnaires. It could be that only the most interested participants completed this follow up questionnaire and that these participants were potentially more anxious or concerned about the procedure. Reducing the sample to only those who completed all three questionnaires suggests that this might partially be the case. However, it is also likely that there is a difference between theoretical confidence levels post workshop and actual confidence levels once parents/ carers have engaged in the practical nature of introducing complementary foods. It is natural for parents to feel a little more unsure during the complementary feeding period<sup>36,37</sup> and it should be noted that confidence levels remained higher than before the workshop.

Feeling confident around choking remained the lowest element, although four out of five participants agreed that they felt confident in preventing this post workshop – a large increase from only 29% pre workshop. Choking is a common anxiety for new parents, although this can ease with experience.<sup>34</sup> Indeed, almost 90% of participants in questionnaire three felt confident around keeping their baby safe and avoiding choking, suggesting that experience helps to consolidate confidence. Mothers also reflected on this in the interviews. Their confidence grew as they realised that babies could handle finger foods and that gagging was not the same as choking. The workshop clearly supported a reduction in anxiety around choking but potentially further signposting to first aid courses might further reduce concern.

Finally, mothers in the interviews reflected on the broader emotional experience of starting solids. Some felt anxious, finding it a challenging experience despite their improved confidence. However, some found it almost an anti-climax and quite ‘boring’ after all their concern and preparation. These mixed feelings about starting solids reflects other research in this area with studies identifying starting solids as an experience that can elicit many difficult emotions, alongside feelings of enjoyment and pride when it goes well.<sup>33,47</sup> It should be taken as a positive that an experience that over half of parents and carers felt they lacked confidence in could be considered boring by the end of it.

#### **4.4. Developing healthy eating behaviours**

The workshop also supported parents in learning more about, and applying responsive feeding principles when feeding their baby. Pre workshop just 39% felt confident in knowing when their baby had enough to eat, rising to 90% post workshop. Likewise, feeling confident in encouraging their baby to try different foods rose from 68% pre workshop to 98% post workshop. Overall, 91% agreed that they felt more confident in feeding their baby responsively as a result of the workshop. This is a significant finding as many parents worry about responsive feeding and getting the balance of nutrients and energy intake ‘right’ to avoid over or under feeding.<sup>35</sup> There can be a tendency to equate eating lots of solid foods with success<sup>54</sup> and therefore knowing how to spot signs of satiety and feed responsively are important. Some mothers in the interviews were worried about their baby eating enough and

further support may be needed to reassure and emphasise that significant amounts of food are not needed during this period.

A small number of participants did use food in non-nutritive ways such as calming their baby (27%) or to encourage them to sleep (12%). Although participants were mainly responsive in their feeding approach, some mothers in the interviews discussed how solid foods could be useful in settling a fretful baby when out of the house. This perception of food as a distraction from unsettled behaviour is common<sup>35</sup> but using food in non-nutritive ways to meet emotional needs may encourage a disconnect in terms of recognising signals of hunger and satiety and later emotional eating.<sup>55</sup> It was also interesting that some participants were both concerned at their baby eating the right amount *and* used food to calm their baby. Is there a disconnection between thinking of food as somehow not having nutritional properties when used in non-nutritional ways? Does the emotional impact of food override concerns around weight, intake and eating the right foods in the moment? It would be interesting to explore this in future research.

Another core highlight of the findings was parental confidence in supporting their baby to try a wide range of textures and flavours. In the interviews mothers talked about offering their baby foods several times if they rejected then the first time to encourage acceptance. This fits with established research that sometimes exposures of up to 8 – 10 times are needed to persuade babies to accept different flavours, particularly those that are more bitter tasting.<sup>56</sup> This concept of ‘laying the foundation of taste’ has been identified in previous studies. In one study with French mothers many were concerned about exposing their baby to multiple tastes and setting up good eating habits.<sup>33</sup> Other studies have highlighted mothers’ concerns around ensuring that their baby is introduced to a wide variety of foods from a taste and nutrient perspective.<sup>57</sup>

#### **4.5. Experience of shared mealtimes**

Most parents and carers in the study included their baby in family mealtimes with three quarters eating with their baby at least once a day in questionnaire three and all mothers in the interview study eating alongside their baby for at least some meals each day. This moves away from the idea of separate baby mealtimes where infants are typically fed alone, often

in a highchair with separate foods. Research has found this is common within many families<sup>58</sup> which suggests that the workshop may have encouraged family mealtimes and shared eating experiences – although it could be that this behaviour is more common amongst parents and carers who sign up for a starting solids workshop.

Why are shared mealtimes important? First, shared eating can be a sociable and enjoyable experience. Research has shown that when parents can engage and interact with their baby during shared mealtimes, they often find this enjoyable<sup>59</sup> and take pride in this shared learning and eating experience.<sup>60</sup> However, time constraints often get in the way of this, particularly when parents are working outside of the home.<sup>61</sup> Some mothers in the interviews felt anxious about not being able to eat every meal with their baby and may benefit from reassurance that not every meal has to be a shared experience in order for babies to learn from this and gain pleasure from eating alongside others.

Sharing food enables parents to model healthy eating habits to their children including exposure to a variety of family cooked foods, trying new tastes and social conventions around eating such as sitting together during meals. Shared mealtimes are opportunity for modelling such skills and seeing parents try and enjoy different foods may encourage children to widen their tastes.<sup>62,63</sup> In the interviews mothers talked about how their baby sometimes sat at the table even if not eating during a meal time, enjoying the social experience.

One concern that was raised in the interviews was around the potential mess created when babies are allowed to self-feed. When out and about this concern was often associated with use of snack based commercial baby foods instead of family foods. At home mothers worried about the additional cleaning and time that self-feeding created. These are understandable concerns, especially for parents worried about food waste and increasing food prices. However, we know that the complementary feeding period is not only about nutrient intake but letting babies learn about the different sensory properties of food. Older children who are allowed to play with and touch their food are more likely to try new foods and show lower levels of fussy eating.<sup>30</sup>

This may be one reason why babies who follow a baby-led weaning approach where they are able to self-feed are often rated as being less fussy eaters than those who are spoon-fed.<sup>32</sup>



However, parents who are concerned about mess may be drawn towards a more parent led spoon-feeding style to minimise mess, reducing both this learning opportunity and chance for a more responsive feeding style.<sup>64</sup> Very controlling interactions during mealtimes and concern about mess have also been associated with later disordered and fussy eating in children.<sup>65</sup> Parents may need more reassurance around how normal mess is, how to make meals more convenient (i.e. floor protection) and support to think about food as a sensory experience.

#### **4.6. Evaluation of the workshops**

Participant evaluation of the workshops was very positive. Parents and carers attributed the workshop to feeling more knowledgeable, confident and the content impacting upon their feeding behaviours. Moreover, the workshops were perceived to be enjoyable with the facilitators, friendly, welcoming and helpful. The workshop clearly fills an important space in parents need for support around feeding their baby which is important given that research often finds that parents feel that formal guidance around starting solids is lacking,<sup>37</sup> leaving them feeling anxious.<sup>23</sup> This is especially true if parents feel a lot of pressure from friends and family, or even health professionals to start solids sooner than planned.<sup>47,66</sup> Parents often express how they just want one detailed reliable source of information that they can trust and follow<sup>68</sup> and the HENRY workshop clearly appeared to meet this need.

In terms of what they would like to see added to or changed in the workshop, feedback predominantly focussed on wanting more information. The workshop is time limited, but many parents felt that more content could be added, with potential follow ups over time exploring how feeding older children might be supported. Additional information on choking was considered important but information around allergens was one of the most common concerns, especially when babies were diagnosed with issues such as cow's milk protein allergy. Topics such as these may be best delivered by those with additional expertise in these areas such as those trained in infant first aid or health complications. Information and support for these topics is accessible from other sources but parents appeared to particularly view HENRY as a reliable source of information they could trust. Potentially the workshop could be widened to establish relationships with trusted partners.

The Covid-19 pandemic necessitated workshops being adapted for online delivery. Due to the timing of the evaluation a mixture of in person and online workshops were delivered. There was no difference in the knowledge, learning or outcomes for those who took part in person or online. Experience of taking part in the online workshop was mixed. Although the necessity of moving online during the pandemic was recognised, and the value of being able to access the workshop privately in their own home appreciated, some felt that they would have liked additional opportunity to meet other parents and ask questions face to face. Overall, the mood of participants was that the option of online workshops should remain but that in person connection was important to for those who preferred this. This reflects similar feelings amongst those accessing breastfeeding support online during the pandemic; efforts and content were appreciated and preferred by some, but many missed that in person connection and support.<sup>68</sup> A hybrid model, retaining the effort and learning that went into creating online content alongside an in person option would support these findings.

#### **4.7. Limitations of the evaluation**

As with any evaluation, this research has a number of limitations to the evaluation. First, as a smaller scale project the design was observational and did not have a comparative group. Questions explored the experiences of those who took part in workshops but cannot be compared to the experiences of those who did not. A full trial would be an excellent next stage, evaluating the HENRY workshop against standard support, although the ethical limitations of excluding parents from a workshop that appears to work so well may be raised. It is possible that comparative data could be collected from regions that do not run workshops, or from parents who choose not to participate.

There was an issue with incomplete survey data as stages of the research progressed. For ethical reasons participants were not required to complete surveys to attend the workshop and as time passed after the workshop, numbers fell. It had initially been planned to conduct a fourth follow up questionnaire when babies were around a year old but very low uptake led to a decision to switch to conducting interviews. This is a very common issue in research with participant numbers falling with subsequent questionnaires / engagement. However, it was likely exacerbated by the Covid-19 pandemic in that data collection had to be remote and there would potentially be less of a 'connection' between the research team and participants.

Switching to a final interview however did provide rich and useful data which complemented that of the questionnaires, arguably enhancing the study.

Our initial aim was to match participant responses across the different questionnaires i.e. linking participant data for pre and post workshop and follow up stages. We planned to collect pre and post workshop data on the same day, asking participants to fill in a paper copy before and after their in-person workshop. However due to necessary online delivery during the pandemic participants were sent online questionnaires via the email or mobile phone number that they used to enrol. This meant that completion rates were lower as participants may have not checked their messages, found it more difficult to complete a questionnaire online or simply not had the same motivation or encouragement to complete it.

We planned to match participant data by asking them to use a code word and add this to every questionnaire. Whereas this may have worked well face to face and completing questionnaires on the same day, participants often had forgotten their code word or misunderstood instructions and used very common words (that others used too) or the name of their instructor or course location. Additionally lower completion rates meant that some participants only completed a before or after questionnaire, with more participants motivated to complete the post workshop questionnaire than the pre workshop one. This resulted in fewer than a third of stage two questionnaires having a matched stage one response. When we examined this smaller matched data set, similar data emerged in terms of knowledge, confidence and behaviour and therefore we made the decision to include all responses, regardless of whether both stages were completed to give a richer and more detailed dataset.

On this note, it would be interesting to explore with participants who did not complete a pre workshop questionnaire why they did not do so. It is likely that taking part in the workshop stimulates interest in its evaluation and participants become more motivated to feedback to those who deliver it. It is also likely that due to taking part a relationship builds with the team and participants feel more motivated to support evaluation efforts. However, it is also possible that trust develops as a consequence of workshop delivery. Sometimes people can feel reluctant to take part in research, particularly if they are concerned about giving the 'wrong' answer or that they will be judged for their responses. The fact that the workshops

were rated as supportive and non-judgemental and the facilitators so welcoming and approachable may have boosted post workshop participation.

In terms of who took part, participants were older and had a higher level of education (and therefore likely income) than average. This is typical of the demographic background of participants in many health-related intervention programmes, especially those that are novel.<sup>69</sup> This may have been further exacerbated by the pandemic. Poverty can be a barrier to mobile phone / computer use in interventions due to issues with data and connection.<sup>70</sup> There is a broader need to ensure that health interventions reach those from communities who need the greatest support.<sup>71</sup> This common issue with recruitment can also be problematic as it can skew the findings of impact of different programme outcomes such as infant feeding decisions, as older and more educated mothers have an increased likelihood of breastfeeding and delaying solids for longer.<sup>20</sup>

We know that parents and carers who choose to take part in interventions such as the Starting Solids workshop tend to have a higher level of education and age than average, which can skew data such as timing of introduction to solid foods. It is impossible to conclude, for example whether all mothers in our interview data set delayed starting solids until six months because of the starting solids workshop or were already more knowledgeable and motivated. However, as noted earlier, timing of solids is not the only worthwhile outcome measure. Clearly the increases in confidence, knowledge of responsive feeding and impacts upon foods offered could make a real difference to other outcomes such as child diet, weight and eating behaviour in the longer term. Follow up research for participants of the workshop would provide a wealth of valuable information.

Diversity of participation in the research was better than many studies in terms of parents from different ethnic backgrounds taking part. However, compared to the diversity of participants who took part in the workshops, it was lower. This may have been exacerbated by the pandemic and online learning as following a workshop in a second or more language may be more difficult when you feel you cannot stop to ask questions, or have the facilitator recognise that you may not have understood something. This has been highlighted as a potential barrier in other online health research.<sup>72</sup> It may also have been exacerbated by data being collected by an external research team, rather than by the facilitators with whom a

relationship had been built. Going forward, with additional funding, it may be possible to consider offering a workshop such as this in different languages.

#### **4.8. Conclusions**

Overall, the Starting Solids workshop was very well evaluated by parents and carers with many attributing it to their increased knowledge and confidence around starting solids. Although many came to the workshops with good basic knowledge around starting solids i.e. to do so at around six months of age, many lacked knowledge and confidence around specific aspects of starting solids such as preventing choking, responsive feeding and making mealtimes enjoyable. Participation in the workshop immensely increased confidence around these different elements showing the value it added to participants experiences of giving their baby solid foods.

In terms of improving the workshop participants wanted to see more detail and depth given around topics such as allergy, balancing milk feeds and food safety. Many would also value additional workshops as their baby grows. Given the impacts upon knowledge and confidence there is clear potential for HENRY to be able to expand provision, especially given the acceptability and enjoyment of the workshop design.

Taken together the findings show that taking part in the HENRY Starting Solids workshop had a significant impact upon the knowledge and confidence of parents and carers in introducing solid foods and feeding their baby. These impacts have real potential to influence later child weight, eating behaviour and dietary intake, targeting major public health issues. Further consideration should be given to wider delivery of the workshops alongside larger scale evaluation of its effectiveness in different populations.

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