



Ali Jadallah/ WFP

Barrier Analysis and In-depth Qualitative Interviews Report

West Bank and Gaza Strip



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Abbreviations & Acronyms

ARA	Access-restricted Areas
BA	Barrier Analysis
BCC	Behaviour Change Communication
CO	Country Office
DBC	Designing for Behaviour Change
EBF	Exclusive Breastfeeding
ICU	Intensive Care Unit
IYCF	Infant and Young Child Feeding
MCHN	Maternal and Child health and nutrition
MDD	Minimum Dietary Diversity
MoH	Ministry of Health
NGO	Non-Governmental Organization
PLW	Pregnant and Lactating Women
PNHV	Post-natal Home Visiting
SBCC	Social Behaviour Change Communications
SoP	State of Palestine
UNICEF	The United Nations Children's Fund
WFP	World Food Programme
WHO	World Health Organisation

Table of Contents

- Executive Summary** 4
- Introduction .1** 13
 - Food Insecurity in the State of Palestine .1.1 13
 - Nutrition in the State of Palestine .1.2 13
 - Maternal, Infant and Young Child Feeding Practices .1.3 14
 - Nutrition and Infant and Young Child Feeding Projects .1.4 14
 - Gaps and Future Plans .1.5 15
- Methodology .2** 17
 - Aims of the study .2.1 17
 - Recruitment and training of data collectors .2.2 18
 - Research design and methods .2.3 19
 - Barrier Analysis .2.3.1 19
 - Qualitative in-depth interviews .2.3.2 22
 - Ethical considerations .2.4 26
 - Limitations .2.5 27
- Research findings .3** 28
 - Barrier Analysis: Research findings .3.1 28
 - Qualitative interview findings: Residents .3.2 57
 - Qualitative interview findings: Key Informants .3.3 89
- Conclusions & recommendations .4** 96
 - Key insights .4.1 96
 - Recommendations .4.2 97
- Appendix I** 99



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Executive Summary

INTRODUCTION:

Palestinians are facing a double burden of malnutrition; high levels of micronutrient deficiencies alongside increasing obesity rates and undernourishment.¹ Children under the age of five in the West Bank and Gaza Strip are particularly vulnerable as a result of micronutrient deficiencies, as well as pregnant and lactating women (PLW).² In the Access-Restricted Areas (ARA) in the Gaza Strip, 18% of pregnant women and 14% of lactating mothers who live in ARA are undernourished. 86% of children under five living in ARA did not have a minimal accepted diet³.

A number of factors contribute to the malnutrition rates. Inhabitants in these areas are exposed to chronic and acute political violence, including settler violence and forced evacuation. They are isolated and marginalised and face persistent restrictions on their movement and access to resources and services.

1 Micronutrient Survey 2013

2 Multisectoral nutrition assessment - WFP, Unicef and Save the Children; 2019; https://docs.wfp.org/api/documents/WFP-0000105498/download/?_ga=2.76193941.1025595199.1567-326065-455604567.1564564834;_accessed=17/07/2019

3 The minimum acceptable diet is a composite indicator that measures if the nutritional needs of a child are met both in terms of diversity and frequency).

The population has difficulties in accessing healthcare facilities due to cost of transportation; cost of health services; and difficulties crossing checkpoints.⁴

To address these and other key maternal, infant and young child health and nutrition (MIYCHN) practices and the high rates of anaemia, there is a need to understand the facilitating factors as well as the barriers to practicing these behaviours that exist in these complicated environments. Therefore, WFP and UNICEF, in consultation with their Regional Nutrition and Health Advisors, jointly identified six behaviours to focus on for this study. The six behaviours were selected because they are promoted through the Ministry of Health (MoH), UNICEF, and WFP programmes among Palestinian women. However, there has been little improvement to date. The behaviours explored were: 1) Exclusive Breastfeeding, 2) Continued Breastfeeding, 3) Minimum Dietary Diversity, 4) Feeding Frequency, and 5) & 6) Consumption of high-iron⁵ foods for pregnant and lactating women, and children 2-5 years old. Behaviours 1-4 were selected by UNICEF and behaviours 5-6 by WFP.

To gain an in-depth understanding of these behaviours, a mixed-methods research approach was taken, including Barrier Analysis (BA) questionnaires and in-depth qualitative interviews in both the West Bank and Gaza Strip.

METHODS:

The BA was initially conducted in the West Bank. Based on learnings from conducting the BA in the West Bank, some changes to the methods were then made to the data collection in the Gaza Strip. The differences are detailed below.

Barrier Analysis

The BA is a rapid assessment tool used to identify the factors that are preventing a target group from adopting a preferred behaviour. BA studies allow for exploration of local beliefs and perceptions which may be pivotal in driving certain behaviours.⁶

The approach involved a cross-sectional survey, which was carried out among a sample of “Doers” (those who practice the behaviour) and “Non-doers” (those who do not). According to BA methodology, purposive sampling was used based on criteria related to the behaviours under study. A sample size of 45 individual

4 Multi-cluster H2 household survey. August 2018. Preliminary Findings

5 This includes **plant-based foods** such as: Green vegetables, for example spinach, silver beet and broccoli; Lentils and beans; Nuts and seeds; Grains, for example whole wheat and fortified breakfast cereals; and Dried fruit. **Animal-based foods** are also included such as: Flesh meat: beef, lamb, goat, rabbit, chicken, duck, other birds; Liver, kidney, heart and / or other organ meats; Fish / Shellfish fish, including canned tuna, and / or other seafood (fish in large quantities); and Eggs.

6 Francisco, J. 'Barrier Analysis of Exclusive Breastfeeding In Ruyigi And Cancuzo Provinces, Burundi'. 2010. Accessed online: http://caregroupinfo.org/docs/BA_Study_Burundi_EBF_CE_FRANCISO_.pdf

Doers and 45 individual Non-Doers is recommended, as this usually gives the most actionable results in Barrier Analysis and is enough to achieve statistical significance.⁷

For each behaviour, the team sampled 45 “Doers” and 45 “Non-doers” across different communities in both the West Bank and the Gaza Strip. All responses were analysed for statistically significant differences between Doers and Non-doers. Once data was coded and tabulated, it was then entered into the Barrier Analysis Tabulation Excel Sheet⁸ for quantitative analysis in order to identify which determinants had significant differences between Doers and Non-Doers.

[In-depth qualitative interviews](#)

In addition to the BA, qualitative interviews were conducted. Grounded Theory⁹ was used throughout the qualitative research to guide sampling, data gathering, and data analysis. A mix of individual, family and friendship-paired interviews were conducted with 37 mothers, fathers and mothers-in-law from the Gaza Strip (Gaza City, North Gaza, Khan Younis and Tal Al Hawa) and seven from West Bank mainly in Area C in Hebron and Yatta. Six interviews with key informants were also conducted. Only seven interviews were initially conducted in West Bank to check for generalisability¹⁰ of the findings from the Gaza Strip. As the findings were prominently the same, the research team concluded that the findings from the interviews in the Gaza Strip can also be applied to the West Bank.

At the start of each interview, loosely structured, open-ended questions were used. In order to pursue an idea or response, more detailed questions were subsequently asked, or prompts made. All interviews were recorded with permission from the participants. The audio-recordings were transcribed verbatim, then translated into English for analysis purposes. The transcripts used accepted procedures for indicating exclamations, pauses and emotion, providing additional information on how the participants expressed themselves¹¹. Transcriptions were imported into the computer program NVIVO¹².

7 Davis Jr., Thomas P., (2004). Barrier Analysis Facilitator’s Guide: A Tool for Improving Behavior Change Communication in Child Survival and Community Development Programs, Washington, D.C.: Food for the Hungry.

8 Kittle, Bonnie. 2017. A Practical Guide to Conducting a Barrier Analysis (2nd ed.). New York, NY: Helen Keller International.

9 The phrase ‘grounded theory’ refers to theory that is developed inductively from a body of data, rather than from the preconceptions of the researchers.

10 Generalisability in quantitative research refers to the extent to which we can generalise the findings from a sample to an entire population (provided that the sample is representative for the population) regardless of context.

11 Field, P., Morse, J. (1985). Nursing research: The application of qualitative approaches. Aspen: Rockville. Seale, C., Silverman, D. (1997). Ensuring rigour in qualitative research. Eur J Public Health, 7, 379-84.

12 Qualitative Solutions and Research Pty Ltd (2019). NVIVO. Victoria, Australia.

KEY FINDINGS:

Key findings and recommendations from the study are summarised in the following pages.

[Barrier Analysis findings summary](#)

Behaviour 1: Mothers exclusively breastfeeding children aged 0-6 months



UNICEF -SoP Loulou d'Aki

Key findings	Potential recommendations for behaviour change strategy
Doers were more likely to see breastfeeding as convenient, healthy, and enjoyable than Non-doers.	Interventions that place emphasis on the convenience, health benefits, and joy for mother and child of breastfeeding should be given to all mothers before they give birth and immediately afterwards. Family members should also be explained the health benefits for both mother and child to encourage them to support the behaviour.
Non-doers were more likely to feel a lack of time; the child not accepting the breast; and the child not becoming 'full' from the breast milk were barriers to exclusive breastfeeding to six months.	Interventions should be aimed at working mothers, to provide more supportive workplace facilities. More education and help for mothers who struggle with breastfeeding attachment and positioning, perhaps in the form of lactation specialists.
Non-doers were 13.4 times more likely to say their husband disapproves than Doers.	Interventions should be aimed at soon-to-be fathers on the benefits of breastfeeding exclusively, how they can support, and how breastfeeding will not affect their relationship with the mother of their child.
Non-doers were 3 times more likely to say God causes children to become malnourished.	Education around the causes of malnourishment in children and empowerment in the prevention of it.
Doers more commonly mentioned the UNRWA clinic than Non-doers as a place where they had heard about exclusive breastfeeding to six months.	Understand where Non-doers are getting their information (e.g. other clinics, word of mouth, and Internet/social media) and work through these channels to disseminate.

Behaviour 2: Mothers continuing breastfeeding of children 6 to 24 months

Key findings	Potential recommendations for behaviour change strategy
Doers were 5.8 times more likely to say they thought they could continue to breastfeed their child at least twice a day until he or she is 2 years old and Non-doers were 8.9 times more likely to say they thought they could not do this.	Supplement with qualitative research data to understand why there is low self-efficacy in Non-doers, and what helps Doers believe in their own ability to continue breastfeeding.
Non-doers were more likely to say they felt there were no benefits for them, their child, or their family from continuing to breastfeed.	Interventions should place emphasises the benefits of continuing to breastfeed past six months, for mother, child and the whole family.
Doers were 2.9 times more likely to say their mother approves of them continuing to breastfeed.	Interventions should be developed for soon-to-be grandmothers on continued breastfeeding.

Behaviour 3: Mothers of children aged 9 to 23 months give child(ren) foods from at least 4 of the 8¹³ food groups every day.

Key findings	Potential recommendations for behaviour change strategy
Non-doers were 2.4 times more likely than Doers to say it is difficult to remember the 6 food groups and which food belongs to each food group.	Introduce easy ways to remember (for example, mnemonic devices, songs, radio jingles, etc.) the food groups and which key foods are in each group.
Doers were 2.9 times more likely to say their mother approves of them feeding their children a diverse diet.	Intervention aimed at grandmothers to increase diet diversity for young children.
Doers are 2.6 times more likely to say it is not difficult to get food from at least four of the food groups every day.	Increase access (or perceived access) to diverse food groups. Use case examples from other local mothers, explaining how they managed to eat a mix of food each day. Simple recipes showing how certain ingredients can easily be added into popular dishes.
Non-doers perceive their child as more susceptible to malnourishment: Non-doers were 3.6 times more likely to say it is very likely that their child will become malnourished in the next year. Doers were 2.5 times more likely to say it is 'not likely at all' that their child will become malnourished in the next year.	Empower Non-doers in their ability to prevent malnourishment in their children. Use Social Learning theory ¹⁴ to support the development of materials, images and messages.

¹³ The eight food groups are: (i) breastmilk; (ii) grains, roots and tubers; (iii) legumes and nuts; (iv) dairy products (infant formula, milk, yogurt, cheese); (v) flesh foods (meat, fish, poultry and liver/organ meats); (vi) eggs; (vii) vitamin-A rich fruits and vegetables; (viii) other fruits and vegetables.

Doers were 2.6 times more likely to say a child becoming malnourished is due to divine will and Non-doers were 2.9 more likely to say when a child becomes malnourished it is not due to divine will.	Supplement with qualitative research data to better understand how Non-doers view the causes of malnourishment.
Doers said being influenced by other siblings' eating habits helped their children eat a diverse diet.	Intervention that emphasises mealtime as a full family experience. Family pledges.

Behaviour 4: Children 6 to 24 months feeding frequently (5 times per day; 3 meals and 2 snacks)

Key findings	Potential recommendations for behaviour change strategy
Non-doers were 4.3 times more likely to say it is very difficult to get the food to feed their children five solid meals a day while Doers were 2.4 times more likely to say it is not difficult at all.	Highlight what health snacks are in season (and therefore cheaper) each month through a calendar. Promote these through social media and through existing community events (i.e. snack of the month).
Non-doers were 6.9 times more likely to say it is 'very difficult' to remember to feed their children solid foods at least five times a day.	Non-doers need reminders, perhaps in the place where the action occurs (for example, in the kitchen), also possibly run radio (and/or social media) adverts to appear at the usual snack times. Jingles to help remind mothers.
Non-doers see their children as more susceptible to becoming malnourished than Doers: Non-doers were 2.7 times more likely to say it is 'very likely' their child will become malnourished in the coming year. Doers were 3.5 times more likely to say it is 'not likely at all' their child will become malnourished in the coming year.	Interventions should include information about the causes and prevention of malnourishment in children in an empowering way. Peer-to-peer support and use of local role models can be used to show what is possible.
In terms of barriers, Non-doers say they struggle more with their financial situation and the availability of food than Doers.	Increase access or perceived access to food ingredients.

14 Social learning theory is a theory of learning process and social behavior which proposes that new behaviors can be acquired by observing and imitating others.

Behaviour 5: Children 2-5 years old eating iron rich food groups

Key findings	Potential recommendations for behaviour change strategy
Non-doers were 10.9 times more likely to say it is very difficult to remember which foods are high iron foods.	Highlight what health snacks are in season (and therefore cheaper) each month through a calendar. Promote these through social media and through existing community events (i.e. snack of the month).
Non-doers perceive that it is harder to access high iron foods than Doers. Non-doers were 3.8 times more likely to say it is hard to get high- iron foods.	Interventions should educate and remind mothers which foods are high in iron, perhaps in the market/grocery store while they are shopping. Use of nudge marketing and point-of-sale marketing in shops to increase awareness and sales.
Non-doers are more likely to believe their financial situation is a barrier to giving their child high- iron foods.	Increase access (or perceived access) to high iron foods. Possibly through the development of a calendar showing which iron-rich products are in season (and therefore cheaper to buy) each month.
Doers were 2.3 times more likely to say there are policies or regulations that make it easier to feed their children high iron foods every day. Non-doers were 2.3 times more likely to say there are not policies or regulations that make it easier to feed their children high iron foods every day.	The current information-dispersal methods (in clinics and hospitals) may not be reaching Non-doers as much as Doers, or Non-doers may not go to clinics and hospital as much as Doers. Non-doers need to be given this information in a different place (online, TV, in markets and shops) or by a different person (community leaders, religious leaders, celebrities).

Behaviour 6: Pregnant and lactating women eating iron rich food groups

Key findings	Potential recommendations for behaviour change strategy
Non-doers see high iron foods as more difficult to access. Non-doers were 6.6 times more likely to say it is very difficult to get high iron foods to eat every day.	Intervention that demonstrates easy and affordable ways to include high iron foods in their existing diet. Simple recipes showing how certain ingredients can easily be added into popular dishes which are cooked frequently.
Non-doers feel more susceptible to anaemia while pregnant or breastfeeding than Doers. Non-doers were 4.2 times more likely to say it is very likely that they would become anaemic while breastfeeding or pregnant and Doers were 2.8 times more likely to say it is not likely at all.	Empower Non-doers in their own ability to prevent anaemia through diet choices. Use Social Learning theory to support the development of materials, images and messages.

<p>Non-doers see anaemia as a more serious or severe health problem than Doers. Non-doers were 2.5 times more likely to say it would be 'somewhat serious' if they became anaemic and Doers were 3.5 times more likely to say it would be 'not serious at all' if they became anaemic.</p>	<p>Information to highlight not simply the risks but also the benefits for the baby, now and in the future. For example, link to brain development of baby and their potential educational achievements in the future.</p>
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Qualitative interviews findings summary

Nutrition – current eating preferences, habits and behaviours

Key findings	Potential recommendations for behaviour change strategy
<ul style="list-style-type: none"> • Most people felt that they ate a healthy diet, given their financial means, and therefore did not see the immediate need to change. • In general, there was good awareness around what should and should not be eaten (i.e. what foods were healthy, and which were unhealthy foods). 	<ul style="list-style-type: none"> • Consider young children's flavour preferences when describing and promoting foods as a way to appeal to them (and their family members who buy them). • Work with mothers and local retailers to offer and promote 'sugar swaps' (i.e. healthy swaps – oat cakes instead of cookies, etc.)
<ul style="list-style-type: none"> • Most participants ate three main meals a day and snacked in between. However, most of the snack foods eaten were unhealthy (i.e., biscuits and cakes). However, most people were not concerned about their unhealthy snacking behaviours. • Sugary snacks appeared to be greatly enjoyed by adults and children and were sometimes used as a reward, for example sitting down to eat a piece of cake and drink a tea after doing the cleaning, or when returning from school. • Snack choices are mainly processed, carbohydrate-rich and high in sugar and salt. • There was good awareness around the need to breastfeed and the benefits for the baby in the first six months. There was less awareness around the health benefits of breastfeeding for the mother e.g., lower risk of ovarian cancer, etc. 	<ul style="list-style-type: none"> • Promote the benefits of breastfeeding for mother and other family members, not just for the baby, for example, saves money, bonding with baby, weight loss for mother, etc.

Vitamins and minerals – Knowledge, attitudes and perceived risks

Key findings	Potential recommendations for behaviour change strategy
<ul style="list-style-type: none"> • The parents understood the benefits and sources of vitamins and minerals, including iron, but often did not see brain development as a longer-term thing (focusing on brain development of babies and foetus only). • Pregnant and lactating women knew they should eat more high iron foods during pregnancy and whilst breastfeeding. However, this did not always continue to their pre-school aged children, as the need for the child to eat high iron foods was not always known or considered. There was lower awareness of the actual benefits of a child consuming such foods amongst family members. 	<ul style="list-style-type: none"> • Capitalise on children and parents’ aspirations and link better nutrition to greater success in school and attainment of life goals. • Increase awareness that the brain keeps developing until mid-20s. • Promote ‘brain foods’ in a fun and interactive way, for example, through social media competitions, etc. • Behaviour change activities to show how to add high iron foods easily into existing dishes.

Social and cultural norms influencing nutrition and breastfeeding

Key findings	Potential recommendations for behaviour change strategy
<ul style="list-style-type: none"> • Families ate together and usually cooked just one meal for all. However, families did cook other foods for younger children and picky eaters. Mothers found picky eaters frustrating at times. • Fathers did the shopping, but mostly based on the mother’s requests, as the mothers did the cooking. • All the mothers loved their children deeply and wanted them to have a good life and do well at school. They often showed love through giving them hugs and kisses and playing with them. • Unable to breastfeed in public made continued breastfeeding socially isolating for some mothers. 	<ul style="list-style-type: none"> • Show the giving of certain foods as a ‘hug’ – for example, a ‘hug in a mug’. • Give ‘top tips’ on how to get high iron food into children, for example disgusting iron-rich vegetables in certain dishes by grating them, etc. • Create awareness amongst all family members and encourage families to make pledges around nutrition and breastfeeding. • Make fathers role models for their children. Because the families eat the same food together, fathers can influence what their children eat through modelling. • Encourage fathers to support their wives whilst they are breastfeeding and to offer continued praise to encourage the practice to continue until 2 years.

Barriers and enablers to improved nutrition and increase breastfeeding

Key findings	Potential recommendations for behaviour change strategy
<ul style="list-style-type: none"> • Overall, many of the participants were happy with their current diet and did not see the need to change. • Safety fears around the use of pesticides and chemicals appeared to be a barrier to eating certain fresh produce. From the research it is not clear where these fears came from. • Breastfeeding was seen as a way to increase their child's IQ as well as a way to bond with their child. This came more problematic if they had other young children. • Breastfeeding was seen as isolating as mothers could not breastfeed in public, so had to remain in their house always to breastfeed. They therefore wanted to stop breastfeeding so they could leave the house more easily. • Going back to work also made breastfeeding hard. 	<ul style="list-style-type: none"> • Create doubt in people's minds as to whether they are feeding their children the best diet. • Promote small, cheap and easy changes which could be made to current diet. • Use social media to breakdown the isolation for mothers staying at home and breastfeeding (and the radio in West Bank where they have less access to the Internet).¹⁵ Create safe spaces where mothers can come together and socialise whilst breastfeeding. Make these spaces fun and sociable, with healthy, high iron snacks for them to eat and drink. For example, a women-only mother and baby club held in a local community centre where mothers are given 'modesty shawls' when breastfeeding. • Greater support for women returning to work whilst still breastfeeding, for example dedicated rooms for nursing mothers to use, etc. Work will need to be done with local employers to explore if such rooms could be made available within workplaces, and if not, explore possible alternatives.

¹⁵ According to PCBS that more than 80% of the Palestinian have access to internet. However, the participants from West Bank had very poor socio-economic profiles, living in Area C and Yatta. When they were asked about social media, their answer was that they do not own mobiles or have internet connections. This is an interesting point to take into consideration for designing behavior change activities.

Trusted individuals, channels and possibly entry points

Key findings	Potential recommendations for behaviour change strategy
<ul style="list-style-type: none"> • Parents prioritise education for their children. • Most mothers said they trust their neighbours, partners, or parents – especially if they have life experiences or relevant qualifications. But they also use the Internet a lot to gain health information. • Healthcare professionals were trusted, but although the messages given appeared not always to be consistent. • Just giving educational messages is insufficient, there is a need to move beyond lectures and leaflets. 	<ul style="list-style-type: none"> • Promote further UNICEF’s Mother and Child Health Handbook as a general unified tool including MIYCHN messages. Promotional work should be done to ensure that all organisations working in the area give consistent messages at which stages (i.e. during pregnancy, in first month post-delivery, etc.). • Develop message ‘pathways’ – helping local services to know which message should be given at which stage of pregnancy, whilst breastfeeding, child development, etc. • Messages should appeal to their ambitions for their children and how it will support their educational goals. • Utilise the Internet and social media platforms, as well as more traditional methods to communicate consistent messages.



Anas al-Baba/ WFP

1. Introduction

1.1. Food Insecurity in the State of Palestine

In the State of Palestine (SOP), there are high rates of poverty and food insecurity. The 2017 household survey¹⁶ found that 29.2% of Palestine's population lives in poverty (14% in the West Bank and 53% in the Gaza Strip), and 16.8% live in 'deep poverty'¹⁷ (5.8% in the West Bank and 33.7% in the Gaza Strip)¹⁸. The impacts of poverty are particularly acute for women and children. High unemployment, high cost of living (particularly cost of food), low household incomes, and the erosion of livelihoods have contributed to food insecurity, with 1.7 million Palestinians (about 0.4 million in West Bank) in need of food assistance at the end of 2018¹⁹.

16 Palestinian Central Bureau of Statistics, 2017. Palestine in Figures 2016. Ramallah – Palestine

17 The poverty line by national standards for Palestine, as set by PCBS in 2011, is 2,293 NIS (\$637) per month for a family of two adults and three children. 'Deep poverty' is a monthly income of NIS 1,832 (US \$509) or less per month for food, clothing, and housing.

18 Palestinian Central Bureau of Statistics SEFsec (2017).

19 <https://www.ochaopt.org/content/humanitarian-needs-overview-2019>

1.2. Nutrition in the State of Palestine

According to recent national surveys²⁰, Palestinians are facing a double burden of malnutrition; malnutrition, a high level of micronutrient deficiencies, and increasing obesity rates. Depleted levels of iron were found in 20% of lactating women in the West Bank and in 28% in the Gaza Strip. According to World Health Organisation (WHO) standards, anaemia in Palestine is considered as a moderate public health problem with the prevalence of mild anaemia in children aged 6–59 months between 20–24%, with moderate anaemia at 8%. Similar results were found for pregnant and lactating women.. Overweight and obesity are also moderate public health problems for pregnant and lactating women, with 31% of pregnant women being overweight and 26% obese, based on body weight and height measured before the 17th week of gestation. In lactating women, prevalence rates are 37% overweight and 23% obese. Wasting, stunting and underweight are classified as mild public health problems²¹. Figures for under five-year olds are presented in the table below.

Figures for under five-year olds				
	Moderate or severe stunting	Moderately or severely underweight	Wasting prevalence - moderate and severe	Overweight
Gaza Strip	7.1%	1.3%	0.7%	6.5%
West Bank	7.7%	1.5%	1.7%	9.8%

1.3. Maternal, Infant and Young Child Feeding Practices

According to a recent assessment conducted in the Access-Restricted Areas (ARA) in the Gaza Strip²², 18% of pregnant women and 14% of lactating mothers who live in ARA are undernourished. 86% of children under five living in ARA did not have a minimal accepted diet²³. 210,000 children in the Gaza Strip under the age

²⁰ Micronutrient Survey 2013

²¹ Multi-Indicator Cluster Survey 2014

²² Multisectoral nutrition assessment - WFP, Unicef and Save the Children; 2019; https://docs.wfp.org/api/documents/WFP-0000105498/download/?_ga=2.76193941.1025595199.1567326065-455604567.1564564834; accessed 17/07/2019

²³ The minimum acceptable diet is a composite indicator that measures if the nutritional needs of a child are met both in terms of diversity and frequency).

of five are particularly vulnerable as a result of micronutrient deficiencies - seven out of every ten children under the age of five. There is a pocket of 36,400 children under five living in ARA who are particularly vulnerable and prone to incidences of watery or bloody diarrheal disease and respiratory infections, exacerbated by the deteriorating access to safe drinking water and restricted access to health services. The combined effect of poor maternal nutrition status, sub-optimal infant and young child feeding practices, child morbidity and inadequate water and sanitation situation may lead to an increased risk of acute malnutrition, as well as an impaired physical growth and cognitive development.

Health and Nutrition programmes in the State of Palestine (SoP) work to address a variety of health, nutrition and development issues of pregnant and lactating women (PLWs) and children under five years of age, including thorough social and behaviour change programming.

1.4. Nutrition & Infant and Young Child Feeding Projects

UNICEF in SoP is either implementing or supporting the MoH to implement several programmes to address maternal and child health and nutrition issues including: 1) the Baby friendly hospital initiative and the implementation of the International Code of Marketing of Breast Milk substitutes; 2) Provision of micronutrient supplementation to high risk PLW and children under 5 years of age; 3) Parent education including nutrition awareness; 4) Breastfeeding counselling at facility level as part of antenatal and postnatal care; 5) Nutrition friendly schools initiative- a very recent intervention in the pilot phase; 6) Targeted postnatal home visiting (PNHV) programme with counselling (Gaza based only); 7) Nutrition awareness and cooking demonstration sessions (Gaza based only); and 8) Malnutrition screening and treatment (Gaza based only). Thus, through its current interventions, UNICEF has been promoting exclusive breastfeeding for the first six months of life, timely and appropriate introduction of solid foods and continued breastfeeding, and diet diversity.



WFP in SoP implements unconditional food assistances to 350,000 non-refugee Palestinians in the West Bank and Gaza who are living under the poverty line. WFP's food assistances projects either provide a food basket, which consists of fortified wheat flour (including iron), vitamin A & D fortified vegetable oil, lentils, chickpeas and iodized salt, or a food voucher that is equivalent to US\$ 10.3 per person per month. With the voucher system, the beneficiaries can buy any food item from an approved list of items that excludes sugary drinks and snack.

WFP used to conduct a Nutrition Awareness project targeting the in-kind and vouchers beneficiaries in West Bank and Gaza Strip. It aimed to increase the participants' knowledge about the healthy diet and cooking practices which could be done on a small budget. In addition, WFP ran special sessions on hygiene, caring for infants, mother's nutrition during pregnancy and whilst breastfeeding, and prevention of non-communicable diseases.

1.5. Gaps and Future Plans: The need to focus on behaviour change

Despite various efforts to improve Maternal and Child health and nutrition (MCHN) behaviours, many indicators of those behaviours remain below target. Exclusive breastfeeding, other breastfeeding and responsive feeding indicators, as well as diet diversity and anaemia require special attention in the SoP, particularly in the context of the ongoing protracted emergency and humanitarian crisis, and as a country affected by the double burden of malnutrition²⁴. To address these and other key MCHN behaviours, there is a need to move beyond the traditional educational approaches and messages giving strategies. Such strategies have been employed in the past and have failed to show impact and sustainable change in people's behaviours and consumption patterns. To start the behaviour change approach, UNICEF and WFP need to conduct formative research to understand the facilitating factors as well as the barriers to practicing these behaviours.

To gain this understanding, a mixed methods research approach was used, including a Barrier Analysis (BA) and in-depth qualitative interviews. Further details of the methods are presented in Section Two of this report. The results of the research are critical in helping the MoH, UNICEF, and WFP develop interventions, programmes, activities, and materials that support the require behaviour changes.

The research explored six complementary behaviours, selected by UNICEF and WFP as high priority areas:

²⁴ The "double burden" of malnutrition refers to the co-existence of undernutrition, micronutrient deficiencies, overweight/obesity and other nutrition-related chronic diseases in the same countries, in the same communities and even in the same households.

1. Pregnant and lactating women eating high iron food groups*
2. Children 2-5 years old eating high iron food groups*
3. Children 6 to 24 months feeding frequently (5 times per day; 3 meals and 2 snacks)
4. Mothers exclusively breastfeeding children aged 0-<6 months
5. Mothers of children aged 9 to 23 months, give children foods from at least 4 of the 8 food groups every day
6. Mothers continuing breastfeeding of children 6 to 24 months

*Iron rich food groups include:

Plant-based foods such as:

- Green vegetables, for example spinach, silver beet and broccoli
- Lentils and beans
- Nuts and seeds
- Grains, for example whole wheat and fortified breakfast cereals
- Dried fruit

Animal-based foods such as:

- Flesh meat: beef, lamb, goat, rabbit, chicken, duck, other birds
- Liver, kidney, heart and / or other organ meats
- Fish / Shellfish fish, including canned tuna, and / or other seafood (fish in large quantities)
- Eggs



Juzoor/ Gaza

2. Methodology

The research was conducted in different stages. First, a BA was conducted in the West Bank. This was then followed by a BA and in-depth qualitative interviews conducted in the Gaza Strip. Finally, in-depth qualitative interviews were conducted in the West Bank.

The methods detailed in this section are from the research conducted in the Gaza Strip. Similar methods were used in the West Bank, however there were a few important differences. Changes to the methods were made, based on learnings from conducting the BA in the West Bank. Details of differences in the methods between the two geographical areas are presented in boxes throughout this section.

2.1. Aims of the study

This formative research²⁵ was undertaken to help develop culturally appropriate and effective strategies, interventions, messages and materials to improve PLW, babies and children's nutrition and health, by increasing exclusive and continued

²⁵ Formative research is research conducted to inform the development of a programme.

breastfeeding rates, promoting optimal feeding frequencies, and increase the variety of food groups and high iron foods consumed. Beneath this overarching goal, five key aims were defined, each with associated research questions. These were:

1. To understand mothers and their families' nutrition knowledge, attitudes and practices
 - What are the current knowledge levels, attitudes and practices of families relating to nutrition?
2. To develop a rounded picture of the peoples' lives
 - What is important to them
 - What moves and motivates them
 - Who are key influencers at the primary, secondary and tertiary levels?
 - Who are trusted individuals, organisations, and sources of information?
3. To identify social and cultural norms that influence nutrition-related behaviours
 - How and to what extent do social and cultural norms influence PLW and children's nutrition?
 - What are appropriate strategies to influence positive social change and create new social norms?
4. To understand the behavioural determinants of optimal nutrition for PLW and children's, including influences and influencers
 - What are the barriers and motivators to optimal nutrition?
 - Who influences health and nutrition behaviours?
5. To inform the design of culturally appropriate and effective Behaviour Change Action Plan in alignment with national policies.
 - What are the most appropriate channels, entry points and existing service delivery platforms to reach the target audiences?

2.2. Recruitment and training of data collectors

Different data collectors were used in the two research locations due to movement restrictions. Different trainers in the two locations were also used, although a similar teaching contents was covered.

Differences between the training delivered in Gaza and West Bank

The West Bank BA took place in November to December 2018 and was supervised by a different international consultant. Twenty-seven participants were recruited from an NGO. The international consultant conducted a two-day workshop which included the basics of Behaviour Change Communication, the Overview of the Designing for Behaviour Change Framework (DBC), identifying programme goals, problem statements, writing behaviour statements, defining Priority Group members, and Behaviour Change Theories including the Stages of Change and the Health Belief Models. The second day was spent focusing on the BA questionnaires as well as the skills necessary for completing the surveys. These included understanding the questionnaire, reviewing the translation, interview techniques, probing skills, how to collect data on the questionnaires, using Quality Improvement Verification Checklists, practical experience using the questionnaires, and the responsibilities of the supervisor in the field

In Gaza Strip, eight data collectors were recruited through a local Non-Governmental Organization (NGO). They all attended a 3.5-days training workshop, conducted in English in October 2019. Days 1 and 2 of the training focused on the basics of behaviour change, qualitative data collection techniques and methodology, and the BA methodology, including understanding the questionnaire, reviewing the translation, interview techniques, probing skills, and practical experience using the BA questionnaires and qualitative interview guides through role play. Day 3 of the training was spent in the field, conducting practice interviews. The final half day was devoted to going through the data collected during the practice interviews, providing feedback, and resolving any translation issues with the data collection tools.

2.3. Research design and methods

2.3.1. Barrier Analysis

[About the Barrier Analysis tool](#)

A Barrier Analysis (BA) is a rapid assessment tool used in community health and other community development projects to identify behavioural determinants associated with a particular behaviour so that more effective behaviour change communication messages, strategies and supporting activities can be developed. The major aim of BA is to help community-level members working to better identify barriers to behaviour change that—if adopted—would have a significant positive impact on the health, nutrition, or well-being of target populations.²⁶

²⁶ Davis Jr., T.P. 2004, "Barrier Analysis: A Tool for Improving Behavior Change Communication in Child Survival and Community Development Programs".

Significant scientific literature has revealed that knowledge alone is insufficient to change behaviour on a whole range of health-related behaviours.^{27 28 29} The literature also recognises that changing behaviour is even more complex when the behaviours are deep-rooted habits.³⁰ Therefore, the Barrier Analysis focuses on eight different behavioural determinants: perceived susceptibility, perceived severity, perceived action efficacy, perceived self-efficacy, cues for action, perceived social acceptability, perception of divine will, and positive and negative attributes of the desired behaviour.³¹

Two main social and behavioural theories informing the BA methods include: 1) the Health Belief Model (HBM); and 2) the Theory of Planned Behaviour (TPB). The Health Belief Model, also known as a value expectancy model, refers to the assumption that “people will engage in healthy behaviour if 1) they value the outcome related to the behaviour, and 2) they think that the behaviour is likely to result in that outcome.”³² The Theory of Planned Behaviour, adapted from the formerly known Theory of Reasoned Action, postulates that behaviour is dependent on two variables: *attitudes* and *subjective norms*. These two variables combine to form an *intention to act*.³³

[How the Barrier Analysis was used in the Gaza Strip and West Bank](#)

The approach involved a cross-sectional survey, which was carried out among a sample of “Doers” and “Non-doers”. A Doer/Non-doer Analysis compares people who perform a particular health behaviour (“Doers”) with people who do not perform the behaviour (“Non-doers”), and investigates possible determinants as to why people are choosing to be Doers or Non-doers, such as whether the behaviour is perceived as easy or popular.³⁴

For each behaviour, the data collection team interviewed 45 “Doers” and 45 “Non-doers”, spread across the Gaza Strip and West Bank. The participants were selected through an initial screening questionnaire. Individuals were first screened and classified according to whether they were Doers or Non-doers, and then asked questions according to their classification. A monitoring excel sheet was used to

27 Corace K, Garber G. When knowledge is not enough: changing behavior to change vaccination results. *Hum Vaccin Immunother.* 2014;10(9):2623–2624. doi:10.4161/21645515.2014.970076

28 French, J. et al. eds. (2009). *Social Marketing and Public Health*. Oxford: Oxford University Press.

29 Dixon A (2008). *Motivation and Confidence: what does it take to change behaviour?* Kings Fund.

30 Duhigg, Charles (2012). *The Power of Habit*.

31 Francisco, J. ‘Barrier Analysis of Exclusive Breastfeeding In Ruyigi And Cancuzo Provinces, Burundi’. 2010. Accessed online: http://caregroupinfo.org/docs/BA_Study_Burundi_EBF_CE_FRANCISO_.pdf

32 Edberg, M. 2007, *Essentials of Health Behavior: Social and Behavioral Theory in Public Health*, Jones and Bartlett Publishers, Sudbury, M.A.

33 Ajzen, I. and Fishbein, M. (1980) *Understanding Attitudes and Predicting Social Behaviour*.

34 Smith, W. & Strand, J. 2008, “*Social Marketing: A Practical Resource Guide for Social Change Professionals*”, Technical Assistance Project, Academy for Educational Development.

keep track of the number of recruited Doers and Non-doers on daily basis and guide recruitment of participants ensure the recommended 45 Doers and 45 Non-doers interviewed for each of the six behaviours.

Behaviour definitions

The six identified behaviours were identified by the UNICEF and WFP teams, and defined as:

- *Behaviour 1: Mothers exclusively breastfeeding (EBF) children aged 0-6 months (i.e. only breast milk).* To assess this behaviour, mothers with children aged 7 to 12 months were recruited to participate in the barrier analysis. UNICEF and WHO recommend that children are given only breastmilk during the first 6 months of life. EBF is recommended because breast milk contains all the needed nutrients for the first few months of life, and provides immunity to disease through maternal antibodies, in addition to other benefits for the mother and baby.
- *Behaviour 2: Mothers continuing breastfeeding of children 6 to 24 months (in addition to giving complementary foods).* To assess this behaviour, mothers of children 9-24 months were recruited. The global IYCF strategy 2002 (WHO, UNICEF) recommend continued breastfeeding until two years of age in addition to complementary foods. The breastfeeding rate nationally in the SoP up to one year of age is only 48% and drops dramatically to 14% at two years. This is well below the WHO's recommendations for continued breastfeeding to two years. Therefore, in order to study the behaviour, the team looked at mothers who were still breastfeeding after the child had started complementary feeding (i.e. six months plus). Given that the rate of continued breastfeeding after one year is so low, the team relaxed the behaviour to 12 months in order to find Doers.
- *Behaviour 3: Mothers of children aged 9 to 23 months, give them foods from at least 4 of the 8 food groups every day.* To assess this behaviour, mothers with children aged 6-24 months were recruited. To meet evolving nutritional requirements of the developing child during this period, minimum dietary diversity (MDD) requires children eat from ≥ 5 (out of 8) food groups³⁵ during the previous day along with recommendation for continued breastfeeding. MDD is an indicator of the diet's micronutrient adequacy, an important measurement of its quality³⁶.
- *Behaviour 4: Children 6 to 24 months feeding frequently (5 times per day; 3 meals and 2 snacks).* To assess this behaviour, mothers with children aged 9-24 months were

³⁵ The eight food groups are: (i) breastmilk; (ii) grains, roots and tubers; (iii) legumes and nuts; (iv) dairy products (infant formula, milk, yogurt, cheese); (v) flesh foods (meat, fish, poultry and liver/organ meats); (vi) eggs; (vii) vitamin-A rich fruits and vegetables; (viii) other fruits and vegetables.

³⁶ UNICEF & WHO Indicators for assessing infant and young child feeding practices. http://www.unicef.org/nutrition/files/IYCF_Indicators_part_III_country_profiles.pdf

recruited to participate in studying this behaviour. Complementary feeding is the transition from EBF to solid or semi-solid food and complementary feeding recommendations cover the 6-24 month period. Complementary foods should provide enough energy, protein and micronutrients to cover a child's energy and nutrient gaps, so that together with breast milk, they meet all his or her needs and should be provided in frequent small feedings during the day.

- *Behaviour 5: Pregnant and lactating women eating high iron foods.* To assess this behaviour, pregnant and lactating Palestinian women were recruited. Iron is present in food in two forms — heme and non-heme iron. Non-heme iron, which is found mainly in plant-based foods, is relatively unstable and affected by many dietary factors. In contrast, heme iron, which is found only in animal tissues (meat, poultry and seafood) has a much higher absorption rate of 15–35%³⁷.
- *Behaviour 6: Children 2-5 years old eating high iron foods* (See Section One for what is meant by high iron foods for this project). To assess this behaviour, mothers with children age 2-5 years were recruited.

The behaviours were the same as the ones selected for the West Bank analysis, except for one change:

For the West Bank's BA, one of the behaviours was: *Pregnant and lactating women only drink coffee or tea either one hour before or one hour after meals.* This was changed to '*Pregnant and lactating women eating iron rich food groups*' for Gaza as there were difficulties in finding Non-doers in West Bank, as it is a cultural habit in both the West Bank and the Gaza Strip to drink tea while eating. However, the food that is consumed with tea is not necessarily iron rich. Therefore, the behaviour was changed to collect data on the iron rich food consumption by pregnant and lactating women and better understand the barriers of the consumption of iron rich food, and the underlying reasons behind the high rates of anaemia among PLW.

[BA Questionnaire Development](#)

The six BA questionnaires were developed and contextualised to the Palestinian context in English following the standard BA questionnaire design guidelines and base on other regional BAs and reviewed by the team. The questionnaires were developed by a consultant who was recruited by UNICEF and an NGO. These questionnaires were then translated into Arabic and checked by the data collection team during the training.

³⁷ Monsen ER. Iron nutrition and absorption: dietary factors which impact iron bioavailability. J Am Diet Assoc. 1988 Jul;88(7):786-90.

Sampling and Recruitment

The sampling and recruitment methods were the same for both Gaza Strip and West Bank. According to BA methodology, purposive sampling was used based on criteria related to the behaviours under study, meaning they were selected because they possessed knowledge that was directly related to the research questions.^{38 39} During data collection, the data collectors approached each potential participant at home or in a clinic, and then found a semi-private place to conduct the interview. Before the interview started, participants were introduced to the study and informed consent taken. Those women who consented to be part of the study were then screened to determine Doer or Non-doer status, before proceeding with the survey interview. As the behaviours were predominately the same as those focused on in the West Bank, the BA questionnaires were the same. However, one was developed for the new behaviour (as discussed above).

Data analysis

The BA methods were the same for both Gaza Strip and West Bank. The data was coded and tabulated, and then entered into the same BA Tabulation Excel Sheet for analysis. In a BA, significance is determined by p value for difference in odds ratio of less than 0.05, or a percentage point difference greater than 15.

2.3.2. Qualitative in-depth interviews

This study used Grounded Theory and the questioning was informed by three social behaviour change models: 1) the Social-Ecological⁴⁰ model; 2) Fogg behavioural⁴¹ model; and the 3) COM-B.

1. Social-Ecological Model. Nutrition-related behaviour is rarely only a personal choice, but also the product of the environment in which people live (McLeroy, et al, 1988). The model acknowledges that nutrition behaviours are influenced by factors at various different levels of influence. Social influences from friends, peers, neighbours and community leaders, etc. are important factors to consider.
2. Fogg Behaviour Model – B=MAP⁴². This theory postulates that three elements must converge at the same moment for a behaviour to occur: Motivation,

38 Lincoln, Y. S. (1985). *Naturalistic inquiry* (Vol. 75): Sage.

39 Patton, M. Q. (2001). *Qualitative Research & Evaluation Methods* (3 ed.): SAGE Publications, Inc.

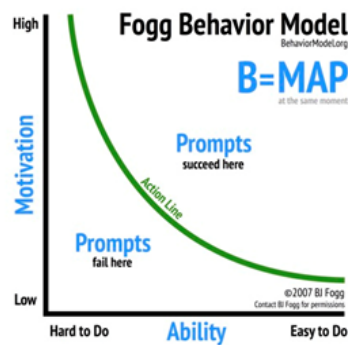
40 McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly*, 15, 351–377.

41 Fogg Behavioural model. <https://www.Behaviourmodelbehaviormodel.org/>

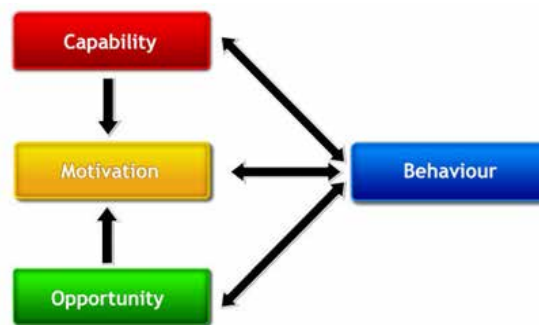
42 BJ Fogg. A Behavior Model for Persuasive Design. Available online: https://www.mebook.se/images/page_file/38/Fogg%20Behavior%20Model.pdf (Accessed 26th February 2020).

Ability, and a Prompt. This means the following must occur at the same time:

- I. the person must be motivated to change their behaviour;
- II. the person must have the ability, or perceive they have the ability, to change their behaviour/ take action; and
- III. an appropriate trigger (i.e. prompt or cue) must be used.



3. COM-B model. The COM-B model hypothesises that people need capability (C), opportunity (O) and motivation (M) to perform a behaviour (B). The authors use an inclusive definition of motivation (M) covers basic drives and automatic processes such as habit and impulses as well as reflective processes such as intention and choice.



Rationale for using the three models

The Fogg model was selected as it can be used to explore and understand the barriers to behaviour change, as well as the motivations. It also is designed to achieve change in our current lifestyles; it is developed on the premises that we now live extremely busy and hectic lives and, as a result, are in habit-mode most of the time. If we want our target audiences to break out of their habitual machinations and do something new, they need to be reminded. Therefore, triggers are so important⁴³. The COM-B model was selected as it can be applied

⁴³ BJ Fogg. A Behavior Model for Persuasive Design. Available online: https://www.mebook.se/images/page_file/38/Fogg%20Behavior%20Model.pdf

successfully to healthy eating and physical activity behaviours⁴⁴, and has been used to tailor health communication efforts in low-income populations⁴⁵.

[The use of Grounded Theory](#)

Grounded Theory was used throughout the study to guide sampling, data gathering, and data analysis.⁴⁶ The phrase 'Grounded Theory' refers to a theory of behaviour that is developed inductively from a body of data, rather than from the preconceptions and personal biases of the researchers. Therefore, findings from such studies should have high validity. The approach is iterative, in that ongoing sampling, data gathering, and data analysis inform each other over time as tentative theoretical explanations are generated during data analysis, and subsequently tested through further data gathering. In this way, a circular process ensures the theory is gradually, but robustly, developed.

[About the participants](#)

Our eating habits and tastes are both deeply personal and profoundly entwined in our cultural, religious and nationalistic norms. This means that people do not make decisions around food choices and nutrition in isolation or based solely on health outcomes/perceived health benefits. With this in mind, in addition to the BA, in-depth interviews were conducted. The participants were selected using purposive sampling, meaning they were selected because they possessed knowledge that was directly related to the research questions.^{47 48} Sampling considered age, age of children, location, employment status, highest level of education achieved, and nationality.

[Data collection methods](#)

A mix of individual, family, and paired interviews were conducted. These interviews were all qualitative in nature to gain a greater understanding of not just the barriers, but to understand *why* these barriers affect eating habits and choices and identify possible change motivators. The sample size aimed to achieve data saturation

44 Susan Michie. British Nutrition Foundation 45th Anniversary Conference, June 2012. Available online: https://www.nutrition.org.uk/attachments/656_9.%20Prof%20Susan%20Michie_Eating%20and%20physical%20activity%20behaviours.pdf

45 Handley MA, et al. Applying the COM-B model to creation of an IT-enabled health coaching and resource linkage program for low-income Latina moms with recent gestational diabetes: the STAR MAMA program. *Implementation Science* Volume 11, Article number: 73 (2016)

46 Glaser, B., Strauss, A. (1967). *The discovery of grounded theory*. Chicago: Aldine.

47 Lincoln, Y. S. (1985). *Naturalistic inquiry* (Vol. 75): Sage.

48 Patton, M. Q. (2001). *Qualitative Research & Evaluation Methods* (3 ed.): SAGE Publications, Inc.

in the Gaza Strip.⁴⁹ However, in West Bank a smaller number of interviews were conducted to determine if the findings from Gaza were generalisable to West Bank (i.e. if West Bank findings were predominantly the same as those from the Gaza interviews). This was done to save funds and time.

In order for participants to feel at ease during the interview, most of the participants were offered the opportunity to be interviewed in the local clinic, their home, or in another location that was convenient to them. All participants were interviewed once. Participants were recruited from homes and health clinics.

Research questions

For this study, semi-structured interviews were conducted. At the start of each interview, loosely structured, open-ended questions were asked. In order to pursue an idea or response, more detailed questions were subsequently asked, or prompts made. The wording was not standardised, as the interviewers tried to use the participant's own vocabulary when framing supplementary questions.

The research questions explore the following areas:

- Current eating habits
- Understanding and knowledge of vitamins and minerals
- Perceptions of risk of iron deficiency and anaemia
- Knowledge, attitudes and awareness of 'healthy' foods and eating a varied diet (and awareness of unhealthy foods)
- Understanding of what a healthy child looks like/eats
- Influences that can potentially form and modify attitudes and current practices – who they trust and who has influence
- Informational needs of the target audience and potential communication channels
- Motivations for change

As the formative research was being done to develop a behaviour change action plan, it therefore needed to explore what 'moves and motivates' the target audience overall and gain an understanding of their day-to-day lives.⁵⁰ Questions were included to explore and probe what participants cared about and valued more generally (as opposed to simply in relation to eating habits). Questions included:

⁴⁹ The point at which no new themes are developed, and the participants are not saying anything new
⁵⁰ French, J. *et al.* eds. (2009). *Social Marketing and Public Health*. Oxford: Oxford University Press.

- Ambitions and hopes for the future (for themselves and their children)
- Hobbies/interests
- Day-to-day activities

The guide was used as an 'aide-memoire' and as a general framework for discussion, ensuring that all themes were covered with the necessary prompts but, at the same time, enabling discussions to be spontaneous, flexible and responsive to the thoughts and opinions of those being interviewed. All the interviews with the participants were recorded with permission. Participants were informed of the intention to record the interview and it was clearly stated when the recorder was switched on or off.

Data analysis

All interviews were conducted in Arabic and then translated verbatim into English. The transcripts used accepted procedures for indicating exclamations, pauses and emotion.⁵¹ Transcriptions were imported into NVivo.⁵² Analysis of the interviews used the constant comparative method.

In discussing the results, using quantitative descriptions to describe qualitative data seemed inappropriate, therefore, the frequency of a response is indicated by such terms as, "all," "most," "many," "some," "a few," or "one." While there are appropriate and scientifically valuable opportunities to employ quantitative analytical processes⁵³, these should not be considered a means for translating qualitative data for audiences who are more receptive to quantitative research claims. Attempting to transform qualitative data into quantifiable measures does little to acknowledge the value and power of in-depth qualitative data and how it can be used to make meaningful contributions in health research. Qualitative data allows for a detailed understanding of the why and the how of any issue, but these rich insights are lost when they are reduced to binaries and frequencies.⁵⁴

2.4. Ethical considerations

The team obtain Helsinki committee approval number PHRC/HC/474/19 date 04/02/2019 and was valid for 2 year. All the study sample were passed informed consent, when obtained interviewers started data entry.

51 Field, P., & Morse, J. (1985). *Nursing research: the application of qualitative approaches*. Croom Helm, London.

52 Qualitative Solutions and Research Pty Ltd (2019). NVIVO. Victoria, Australia.

53 Scherp, H. 2013. Quantifying qualitative data using cognitive maps. *International Journal of Research & Method in Education*, 36(1): 67–81.

54 M. Pedersen, Image quality metrics for the evaluation of printing workflows, Ph.D. thesis, University of Oslo, 2011

Several measures were put in place to ensure the wellbeing and privacy of the participants. These included:

- *Explaining the study.* Before consent was sought, potential participants were clearly explained about the study, including why it was being done, who it was being done by and for whom, why they were being asked to take part in the study, time commitments (i.e., length of interview), and what the data would be used for. It was also stressed that if they declined to take part, then their use of services would not be affected in anyway.
- *Consent.* Data collectors approached each potential participant at home or in a clinic, found a semi-private place to conduct the interview, then introduced the study and sought informed consent. Those who consented to be part of the study were then interviewed.
- *Secure data storage and anonymization of the data.* All data was securely stored by the NGO team. All data collection was anonymous and recorded electronically and passed directly to a server in the WFP for Gaza, while the West Bank data was maintained and processed by NGO team.
- *Location of interviews.* The interviews were all conducted at a location which was private and where the participants felt at ease.

2.5. Limitations

As with every assignment of this nature, there are several limitations. First, the results of BA questionnaires and in-depth interviews are dependent on the accuracy of participant's self-reporting of their behaviours and perceptions, and furthermore may lead to selection bias or information bias. For example, the research showed that, overall, mothers had good awareness that they should breastfeed. Therefore, many mothers seemed to know that not giving their children breast milk before six months of age was the "correct" answer, thus creating the possibility for selection bias. However, this self-reporting is the basis for most population-based data in developing countries. Additionally, the recruitment and informed consent process made clear to mothers that their participation and responses would not in anyway affect certain benefits that they would receive, and it was stressed that there are no "right or wrong answers". Nonetheless, some mothers may have reported what they think the interviewers wanted them to say rather than what they actually do or believe.

While the national staff worked hard to provide accurate translation and interpretation of questions, certain ambiguities in translation may have led to

information bias. The language and the translations of the initial six BA tools were revised several times until the last minute before the training, especially the questions about taboos, religion and culture. In addition to this, the modifying intake of iron questionnaire needed extra revisions of the translation and reprinting the study tool; as it was different from the one that was used in West Bank, which focused on tea and coffee consumption.

Finally, there were changes to the data collection team between locations and different training providers. This can result in inconsistent approaches, although the research teams received similar training and used the same data collection tools to minimise this risk.



Ali Jadallah/ WFP

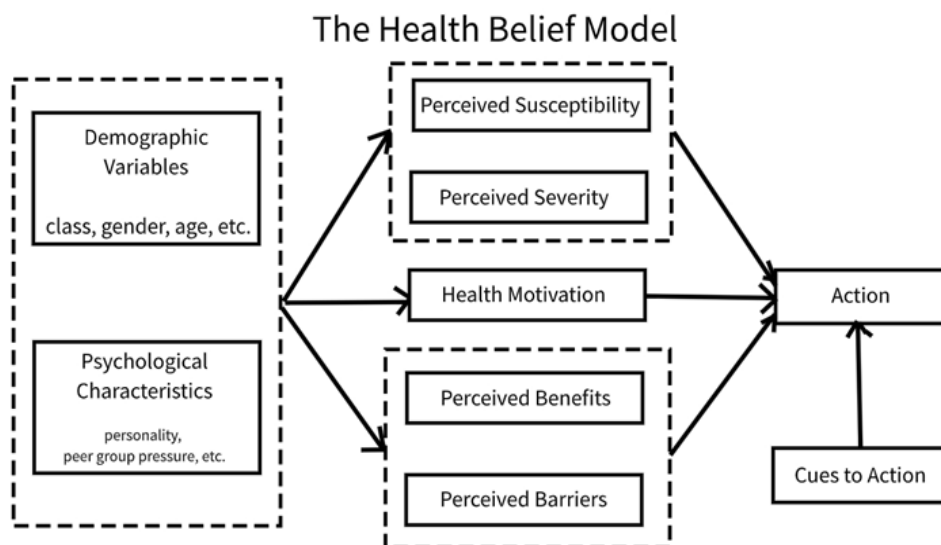
3. Research Findings

3.1. Barrier Analysis: Research findings

Note: The findings detailed in this report predominantly focus on the Gaza Strip findings. However, for each behaviour, details of any differences between Gaza and West Bank are identified at the end of each section.

As discussed in Section 2, the Barriers Analysis surveys were based on the Health Belief Model (Figure 1). Therefore, where possible, the findings for each of the six behaviours have been presented against the variables detailed in the Model.

Figure 1. Health Belief Model⁵⁵



3.1.1. Behaviour 1: Mothers exclusively breastfeeding children aged 0-6 months

- **Self efficacy**

Respondents were asked what makes or would make exclusive breastfeeding to six months **easier**. More Doers than Non-doers said it is easy because *'it is convenient'*, *'it is healthy'*, and *'it is enjoyable for me and my child'*.

"Breast milk is available; I can breastfeed my child any time." (Doer)

"What makes the breastfeeding easy is that I like it and my baby likes it too. The breast milk was also enough." (Doer)

All respondents from both the Doer and the Non-doer groups said it is easier, or would be easier, if they *'have enough time'*, *'have enough milk'*, and *'my baby refuses formula milk/if my baby would accept breastmilk'*. As the quotes below show, although counterintuitive, Non-doers still believe breastfeeding was easier than bottle feeding.

"[If] my child accepts my milk and feels full from it. I'm a housewife and always stay at home." (Non-doer)

"My child was preferring breastfeeding and refuse bottle feeding." (Doer)

"The child accepts the breastfeeding from birth." (Non-doer)

⁵⁵ Edberg, M. 2007, *Essentials of Health Behavior: Social and Behavioral Theory in Public Health*, Jones and Bartlett Publishers, Sudbury, M.A.

- **Perceived barriers of action**

When asked what makes exclusive breastfeeding to six month **difficult**, more Non-doers than Doers said, *'I do not have time'*, *'my child does not accept the breast'*, and *'my child is not full from breastfeeding'*.

"My breast milk was little, and he refused my breast milk when he was 3 months." (Non-doer)

"My baby was crying and didn't feel full when he was three months." (Non-doer)

"I am working and have to leave my baby without breastfeeding for hours at home because of work." (Non-doer)

On the other hand, Doers were more likely to say *'nothing'* when asked what makes breastfeeding difficult.

There was no significant difference between Doers and Non-doers in relation to their responses around 'how difficult it is to remember to breastfeed exclusively for six months'. Most respondents said it is *'not difficult at all'* to remember to do (Doers: 89%, Non-doers: 93%).

- **Perceived benefits of action**

All respondents – regardless of whether they were Doers or Non-doers, said the main benefit of breastfeeding exclusively for six months is *'my child's immunity and health'*. *'Cost'*, *'the child-mother relationship'*, and *'mother's health'* were the next most common responses.

"Give my baby good immunity and strengthens his body. For me strengthens the relation between me and my child. Give me good health." (Doer)

"The baby grows well with good height and weight. For mother, protect her from breast cancer." (Non-doer)

- **Social norms**

There were no significant differences between Doers and Non-doers in relation to the question: 'who **approves** of them breastfeeding exclusively to six months'. The most common responses were *'my husband'* (Doers: 62%, Non-doers: 62%), *'my mother'* (Doers: 56%, Non-doers: 56%), and *'my mother-in-law'* (Doers: 58%, Non-doers: 42%).

The most common response when asked who **disapproves** of them performing this behaviour was 'no one' for both groups (Doers: 58%, Non-doers: 53%). However, Non-doers were 13.4 times more likely to say their husband disapproves than Doers (p=0.006).

- **Access**

Doers were 3.5 times more likely to say it is 'very difficult' to get the **support** they need to give only breast milk to their baby for the first six months (p=0.045). Non-doers were 6 times more likely to say it is 'somewhat difficult' (p=0.001), and Doers were 2.6 times more likely to say it is 'not difficult at all' (p=0.015).

- **Perceived susceptibility**

There was no significant difference in perceived **susceptibility** between Doers and Non-doers. Most respondents said it was 'somewhat likely' that their baby will get diarrhoea in the next three months (Doers: 56%, Non-doers: 58%). Responses were fairly evenly split over 'not likely', 'somewhat likely', and 'very likely' when asked if their children will become malnourished in the next year (Table 1).

Table 1. How likely is it that your baby will become malnourished in the next year?

	Doers	Non-doers
Very likely	22%	29%
Somewhat likely	36%	33%
Not likely at all	42%	38%

- **Perceived severity**

There was no significant difference in perceived **severity** between Doers and Non-doers. Most respondents of both Doers and Non-doers said diarrhoea and malnourishment are 'somewhat serious' or 'very serious' (Table 2).

Table 2. How serious would it be if your baby got diarrhoea/became malnourished?

	Doers		Non-doers	
	Diarrhoea	Malnourishment	Diarrhoea	Malnourishment
Very serious	49%	60%	42%	47%
Somewhat serious	40%	31%	44%	47%
Not serious at all	11%	9%	20%	7%

- Divine will**

There was no significant difference between Doers and Non-doers on whether their religion tells them to breastfeed exclusively for the first six months of life. Most respondents said ‘yes’ it does (Doers: 71%, Non-doers: 67%).

Most respondents who said yes specified that they are instructed in the Quran to breastfeed. Some added further that they are instructed to breastfeed until the child is 2 years old.

“Yes, in Quran weaning in two years.” (Non-doer)

When asked if they thought God causes children to become malnourished, Non-doers were 3 times more likely to say ‘yes’ (p=0.022).

- Culture and policy**

There was no significant difference between Doers and Non-doers on whether there are **cultural taboos** against breastfeeding exclusively to six months. Most respondents said ‘no’, there are no taboos (Doers: 80%, Non-doers: 73%).

Participants were asked about any teachings, recommendations, policies, laws or regulations that make it more likely that women give only breast milk to their babies for a full six months. Most respondents said they heard about exclusive breastfeeding ‘in clinics or hospitals’.

“At the primary health care clinics, they give us advices and pamphlets about breastfeeding from the first six months. In hospital at birth” (Non-doer)

Doers more commonly mentioned the UNRWA clinic than Non-doers.

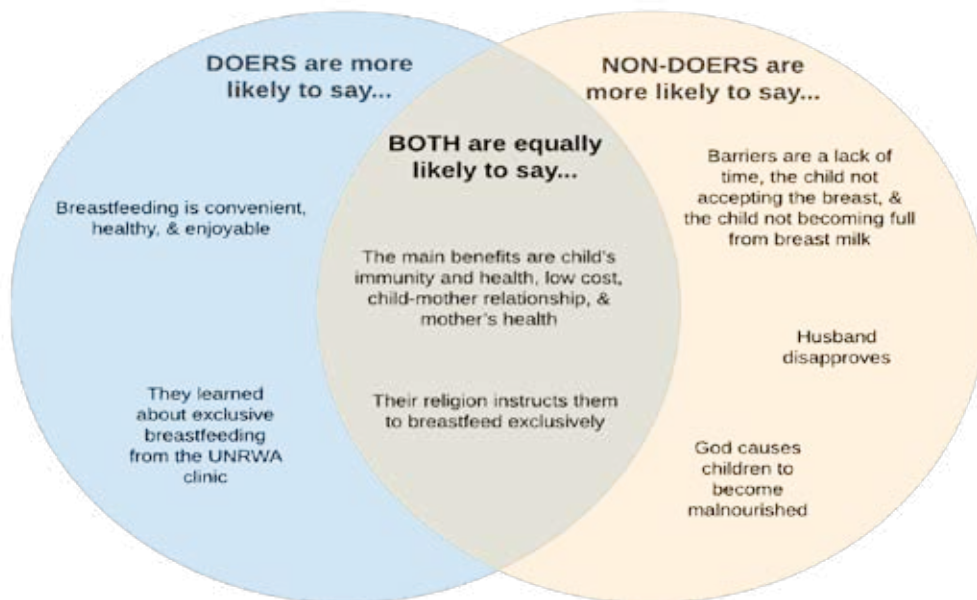
"Yes. Seminars in the UNRWA clinic show that breastfeeding is better than formula and helps the baby to grow and increase intelligence." (Doer)

Summary of Behaviour 1

The above findings for *exclusive breastfeeding for the first 6 months* are summarised in Figure 2.

Figure 2. Summary of findings: Behaviour 1

Figure 1. Comparing Doers and Non-doers of Behaviour 1: Mothers exclusively breastfeeding children aged 0-6 months



Similarities and differences between Gaza and West Bank

In the West Bank, the determinants that were significant included perceived self-efficacy, positive consequences, negative consequences, cues for action, culture, and universal motivators. Similar to Gaza results, the Non-doers in West Bank were 12.9 times more likely to say that they do not make enough breastmilk than Doers. Doers were 2.8 times more likely to state that breastfeeding increases the intimacy between a mother and her baby than Non-doers. Non-doers were more likely than Doers to say that a negative consequence of breastfeeding is that it changes the breast shape and makes breasts sag. Non-doers are more likely to say that exclusive breastfeeding leads to excessive attachment which prevents the mother from moving feely or leaving the baby with anyone else for care. Non-doers were 3.7 times more likely to say that it is 'somewhat difficult' to remember to exclusively breastfeed their child.

3.1.2. Behaviour 2: Mothers continuing breastfeeding of children 6 to 24 months

- **Self efficacy**

Participants were asked if they thought they could continue to breastfeed their child at least twice a day until he or she is 2 years old. Doers were 5.8 times more likely to say 'yes' and Non-doers were 8.9 times more likely to say 'no'.

- **Perceived barriers of action**

There were no significant differences between Doers and Non-doers when asked how **difficult** it is to remember to continue to breastfeed to 2 years. Most respondents said it is '*not difficult at all*' (Doers: 78%, Non-doers: 70%).

When asked what makes it difficult to continue to breastfeed after six months (until the baby is 2 years old), respondents brought up a variety of barriers:

- Decreased lactation due to lack of healthy food
- Baby not accepting breast
- Health problems such as painful nipples and fatigue
- Lack of time/perceived convenience of bottle feeding
- New pregnancy

"There aren't difficulties except that when I go outside the home, I can't breastfeed my baby in front of people." (Doer)

"Sometimes there is no food to eat so there is not enough milk to feed him." (Doer)

"What makes the breastfeeding difficult for me is that the baby breastfed all the night so I couldn't sleep, and the breastfeeding was causing me a nipple burn." (Non-doer)

- **Perceived benefits of action**

All respondents listed the following benefits when asked what the advantages of continuing to breastfeed from 6 to 24 months were:

- Intelligence, health, and immunity of child
- Improve relationship between baby and mother

- Feel good about self and feel as if you are doing the best for your child
- Mother's health - prevent cancer, engorgement, contraception, losing weight, uterus returns to position
- Comfort, joy, pride
- Saves money

"Good health, become smarter, gaining weight." (Non-doer)

"I am happy. It helps me to give tenderness to the baby. Feeling of achievement and not blaming myself that I can't do more for my baby." (Doer)

"Save home expenses by not buying formula milk." (Non-doer)

However, Non-doers were more likely to say they felt there were no benefits for them, their child, or their family from continuing to breastfeed.

"There aren't advantages to continue breastfeeding because the baby doesn't feed enough and so that can't benefit from it." (Non-doer)

"None. I hate the idea of breastfeeding." (Non-doer)

- **Social norms**

Doers were 2.9 times more likely to say their mother **approves** of them continuing to breastfeed (p=0.006).

There were no significant differences between Doers and Non-doers when asked who **disapproves** of them continuing to breastfeed. The most common response for both groups was 'no one' (Doers: 48%, Non-doers: 52%).

Of those who mentioned someone in their life disapproving of them continuing to breastfeed, respondents said the reason people disapproved was because they were worried about the health of the mother or child (e.g. fatigue or nipple pain for mother; gaining too much weight for child).

"My mother because she knows that I can't breastfeed anymore as I am psychologically suffering." (Non-doer)

"My mother and my mother-in-law say that he had grown. That is enough." (Non-doer)

- **Access**

There was no significant difference in perceived access. The most common response was it is '*not difficult at all*' to get **support** to continue breastfeeding their child (Doers: 48%, Non-doers: 46%).

- **Perceived susceptibility**

There was no significant difference between Doers and Non-doers in perceived **susceptibility**. Most respondents said it was '*not likely at all*' that their child would become malnourished in the next year (Doers: 41%, Non-doers: 41%).

Most respondents also said it was '*not likely at all*' that their child would become malnourished if they continue to give breast milk along with food to their baby until they are 2 years old (Doers: 63%, Non-doers: 59%).

- **Perceived severity**

There was no significant difference between Doers and Non-doers in perceived **severity**. Most respondents saw child malnourishment as a '*very serious*' problem (Doers: 59%, Non-doers: 63%).

- **Divine will**

Participants were asked if their religion supports continuing to breastfeed in addition to adding food up to 2 years. There was no significant difference between Doers and Non-doers and the vast majority of respondents said 'yes' (Doers: 93%, Non-doers: 93%).

Most respondents also said they did not believe malnourishment was caused by God (Doers: 67%, Non-doers: 63%).

- **Culture and policy**

The majority of respondents reported there were no **cultural taboos** or **myths** against continued breastfeeding (Doers: 80%, Non-doers: 78%).

Those who responded 'yes' explained the cultural taboos included a '*desire/expectation to become pregnant again before the child turns 2 years old*', '*judgment from others who think a walking, eating child is too old to breastfeed*', and the belief that '*the child is taking more and more energy and nutrition from the mother*' as the child gets older.

“Some women think that period of breastfeeding enough two years because the baby takes from health of mother.” (Doer)

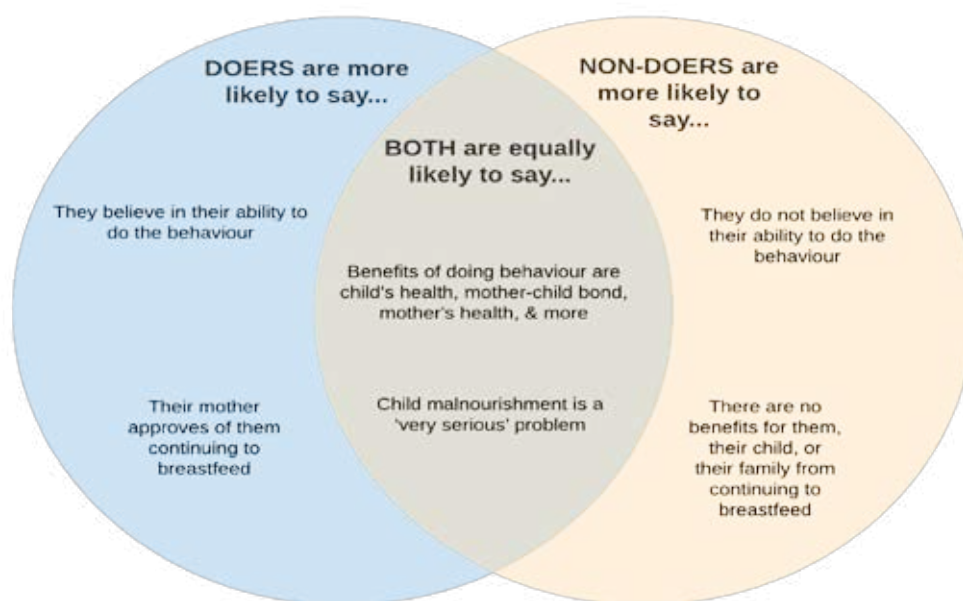
“If people find a mother is still breastfeeding her baby over one year, they will say, What a disgusting! They ask, how your baby runs and then comes normally to be breastfed!?” (Non-doer)

Summary of Behaviour 2

The above findings for *continued breastfeeding until 2 years of age* are summarised in Figure 3.

Figure 3. Summary of findings: Behaviour 2

Figure 2. Comparing Doers and Non-doers of Behaviour 2: Mothers continuing breastfeeding of children 6 to 24 months



Similarities and differences between Gaza and West Bank

Unlike in Gaza, in West Bank the Doers were 2.2 times more likely to say, *“I know it improves the health of my child”* than Non-doers. Doers were 2.8 times more likely to say, *“I know there are health benefits for the mother, like preventing cancer”* than Non-doers. Doers were 2.1 times more likely to say that their mothers-in-law approved of them continuing to breastfeed their child until s/he is at least 12 to 24 months old. Doers were 1.9 times more likely to say that there is a policy that supports continued breastfeeding than Non-doers.

3.1.3. Behaviour 3: Mothers of children aged 9 to 23 months give child(ren) foods from at least 4 of the 8 food groups every day.

- **Self efficacy**

All participants said giving their child foods from at least four of the six food groups every day would be **easier** if *'I had more money'* and/or *'my child accepted and enjoyed a lot of types of foods'*.

"What makes it easy for me to feed my baby food is that the baby likes the food and accepts it." (Doer)

"All nutritional groups are not available in my house, because unavailability of money." (Non-doer)

Doers added it is easy for them because *'my child is influenced by what their siblings eat and want to be like them'*.

- **Perceived barriers of action**

Non-doers are 2.4 more likely than Doers to say it is **difficult** to remember the six food groups and which food belongs to each food group ($p=0.034$). However, there was no significant difference between Doers and Non-doers when asked how difficult it is to **remember** to include foods from the four groups into meals they make for their child. Most participants said it is *'not difficult at all'* to remember (Doers: 55%, Non-doers: 50%).

Both Doers and Non-doers brought up a *'lack of money for buying diverse foods'* as the main barrier to feeding their child a diverse diet.

"My husband is jobless; our financial situation is bad." (Doer)

"I feed him what is available, but not all types of food are available all the time. I can't always buy meat and chicken." (Non-doer)

All respondents also mentioned the following barriers:

- Child refusing certain foods
- Child not having a big appetite
- Not being home to prepare meals
- When child is sick, they do not want to eat a diverse diet
- Child wants to breastfeed instead of eating food

- **Perceived benefits of action**

Respondents discussed the following perceived benefits of giving their children four of the six food groups every day:

- Growth, development, health - walk early, grow in height and weight, increased immunity, increased intelligence
- Active, not tired
- Mother feels comfortable/happy

"His health is better, and his activity is better, and his sleep is better."
(Doer)

"These foods help the baby for walking early, get teeth early, enhancing his immunity and improving his blood Hb." (Non-Doer)

- **Social norms**

Doers were 2.9 times more likely to say 'my mother' **approves** of them feeding their children a diverse diet ($p=0.005$). However, there were no significant differences in who respondents said **disapproves** of them doing this behaviour. The majority said 'no one' disapproves (Doers: 83%, Non-doers: 82%).

"When I visit my mother, she cooked beans and gives me a dish to feed my daughter and she refuses to give my baby a biscuit and tells me that the homemade food is the most beneficial for the baby. My mother encouraged me to prepare soup for my baby." (Doer)

Of those who mentioned someone in their life disapproving of them feeding their child a diverse diet, the reasons for disapproving included the following:

- Fear the child will become obese
- Do not want to waste uneaten food
- Do not want to spend money on food

"My sisters-in-law [disapprove], because I put food in the dish, and when he refuses to eat it, I get rid of it." (Non-doer)

"My mother-in-law ask me not to feed my children a lot to avoid weight gaining and obesity." (Doer)

- **Access**

Doers were 2.6 times more likely than Non-doers to say it is '*not difficult at all*' to get food from at least four of the food groups every day ($p=0.033$).

- **Perceived susceptibility**

Non-doers were 3.6 times more likely than Doers to say it is '*very likely*' their child will become malnourished in the next year ($p=0.003$). Doers were 2.5 times more likely than Non-doers to say it is '*not likely at all*' their child will become malnourished in the next year ($p=0.017$).

Non-doers are 5.1 more likely than Doers to say it is '*not likely at all*' that their child will become malnourished if they feed him or her foods from at least four of these food groups each day ($p=0.00$).

- **Perceived severity**

There were no significant differences between Doers and Non-doers on beliefs about the **severity** of their children becoming malnourished. For both groups, most respondents (Doers: 72%, Non-doers: 68%) said it would be 'very serious' if their child became malnourished.

- **Divine will**

Doers were 2.6 times more likely to say a child becoming malnourished is due to divine will ($p=0.018$) and Non-doers were 2.9 more likely to say when a child becomes malnourished it is *not* due to divine will ($p=0.010$). When asked to elaborate on what their religion says about food diversity, many Doers brought up specific parts of the Quran while the Non-doers said they knew their religion said something about food diversity, but could not say what or where it was said in the holy scripture.

"Yes, from Holy Quran, 'figs and olive'." (Doer)

"Yes, but I don't know details about this issue." (Non-doer)

- **Culture and policy**

There were no significant differences between Doers and Non-doers when it came to culture and policy around food diversity. The majority of respondents (Doers: 87%, Non-doers: 86%) said there were no **cultural taboos** against feeding your

child from at least four of the six food groups each day. Of those who said there were taboos in their culture, they mentioned:

- You are not supposed to mix certain ingredients (e.g. no milk with fish)

“Don’t mix eggs with milk or fishes with eggs.” (Doer)

- If a mother lives with her mother-in-law, the mother-in-law may be controlling

“Mothers-in-law want to dominate and control everything to save her son’s money, so they prefer only to continue breastfeeding without feeding food.” (Doer)

- There is a belief that breastfeeding is better than food and the child should breastfeed only

“Many women believe that is breastfeeding enough for babies and this is more beneficial than food.” (Non-doer)

There were no significant differences between Doers and Non-doers on teachings/policy. The majority of respondents in both groups (Doers: 72%, Non-doers: 75%) said ‘yes’, there are teachings, policies, or recommendations in their culture that make it more likely women would give their children food from at least four of the six food groups each day.

They were asked what policies or recommendations they knew of. They most frequently said:

- Booklets and health sessions in clinics, including United Nations Relief and Works Agency (UNRWA) and an NGO

“In UNRWA clinics, banners, brochures awareness leaflet. Also, on the Internet, there is a lot of awareness posts about that.” (Doer)

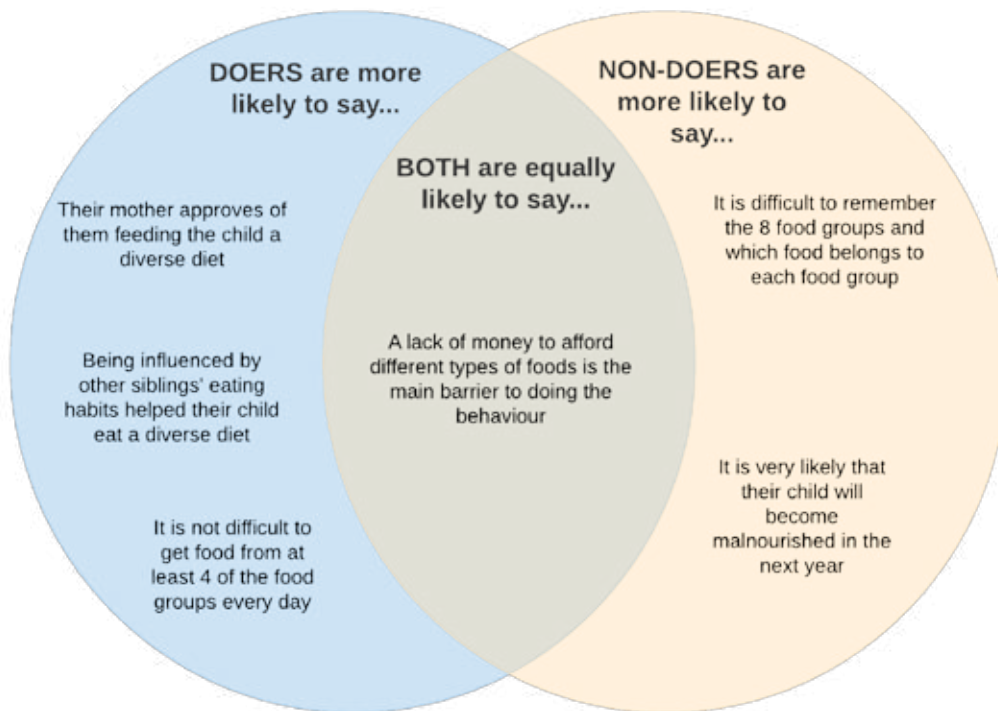
- TV and internet

“The Internet is rich in topics related to child nutrition, on Webteb and baby website, they advised about follow up children food by mothers, then they will not get anaemia.” (Non-doer)

Summary of Behaviour 3

The above findings for *mothers of children aged 9 to 23 months giving their children foods from at least four of the eight food groups every day* are summarised in Figure 4.

Figure 4. Summary of findings: Behaviour 3



Similarities and differences between Gaza and West Bank

In the West Bank, the behaviour was originally relaxed to at least 4 of the 8 food groups because there were no prevalence data to provide an indication of the rates of diversity in feeding prior to preparing the survey. Therefore, it was assumed that it would be difficult to identify Doers. This behaviour was discussed during the training workshop with regard to whether or not the behaviour needed to be tightened or relaxed and it was consensus that most families are not offering food variety to their children. Unfortunately, the opposite seemed to be true as teams had a difficult time finding mothers who were not offering foods from all of the food groups.

There were some significant findings. Doers were 3.1 times more likely to say that it is easier for them to feed their child at least 4 of the 8 food groups per day because their child likes to eat. Non-doers were 5.5 times more likely to say that their child did not accept all kinds of foods than doers. In addition, Doers were 2 times more likely to say, when asked how difficult it is (or would it be) to get food from at least four of these food groups, that the food is available than Non-doers. Doers were 1.9 times more likely to state that their mothers approved of them doing the behaviour. When asked about access to food, Non-doers were 26.7 times more likely to say, "It is very difficult" than doers. Doers were 3.1 times more likely to say, "It is not difficult at all" than Non-doers.

3.1.4. Behaviour 4: Children 6 to 24 months feeding frequently (5 times per day; 3 meals and 2 snacks)

- **Self efficacy**

Respondents were asked what makes or would make feeding their children five meals a day **easier**. They brought up the following factors:

- Availability of food/money for food
- Child's appetite
- Availability of time
- Parental love and devotion
- Sibling jealousy
- Child's health

"My child asks for food and likes to eat what we eat." (Doer)

"There is no desire for food for the child and he does not like food at all. If he has the desire for food will feed him easily." (Non-doer)

"I feed him because I know it is good for him and essential to grow and he likes to eat like his brothers and sisters." (Doer)

- **Perceived barriers of action**

Non-doers were 6.9 times more likely to say it is 'very difficult' to **remember** to feed their children solid foods at least five times a day ($p=0.034$). Doers were 2.3 times more likely to say it is 'not difficult at all' to remember to feed their children solid foods at least five times a day ($p=0.044$).

Respondents were asked what makes or would make it more **difficult** to feed their children five solid meals per day. The 'lack of food/money for food' as a barrier was more frequently mentioned by Non-doers than Doers.

"The economic situation is the main factor for example, the lack of money leads to lack of cooking at home which results in feeding the child anything else." (Non-doer)

The other barriers mentioned by all respondents included:

- Inconvenience when outside home/working

- Child is sick or disabled
- Child is fussy

"My child is suffering from cerebral palsy and can't move his mouth." (Doer)

"If she was sick, she can't eat well." (Doer)

"The baby doesn't accept the food and her appetite isn't good." (Non-doer)

- **Perceived benefits of action**

There were no differences between Doers and Non-doers when asked about the benefits of feeding their children five solid meals per day. Most respondents said their child's health would benefit: the child would gain weight, grow stronger, have increased immunity, and become more intelligent. Most respondents also said feeding their child five meals a day would bring them as parents' peace of mind because the child would be full and calm, not fussy and crying.

"When he feels full, he sleeps and do not cry and so I will have a chance to rest." (Doer)

"For the child gain weight and for me I feel happy when I see my baby has good health and become walking and see his teeth." (Doer)

"The advantages are promoting baby health, cognition and motor development and so that I and his father will rest assured on him." (Non-doer)

- **Social norms**

Participants were asked who in their life approves and disapproves of them feeding their children five solid meals per day. There were no significant differences between Doers and Non-doers in terms of social norms. The majority of respondents said 'no one' **disapproves** of them doing this behaviour (Doers: 80%, Non-doers: 83%) (Table 3).

Table 3. Percent of Doers and Non-doers who said someone in their life approves or disapproves of them doing the behaviour.

	Approves		Disapproves	
	of Doers % who gave response	of Non-do- % ers who gave response	of Doers % who gave response	of Non-do- % ers who gave response
Mother	27%	26%	4%	0%
Mother-in-law	31%	49%	0%	0%
Husband	44%	34%	2%	4%
Family (other and unspecified)	27%	30%	11%	11%
No one	11%	9%	80%	83%
Non-family	11%	4%	0%	2%

- Access**

Respondents were asked how **difficult** it is for them to get the food to feed their children five solid meals a day. Non-doers were 4.3 times more likely to say it is 'very difficult' to get the food (p=0.006) while Doers were 2.4 times more likely to say it is 'not difficult at all' (p=0.018)

Those who reported it is 'somewhat difficult' or 'very difficult' were asked why they said this. Most Doers and Non-doers said it is somewhat or very difficult to provide five meals a day to their children because they lack the money to afford the food.

"When we have no money due to the bad financial status, especially her father is not working." (Non-doer)

"Due to the constant lack of money." (Doer)

A few Doers said it was difficult because they worked outside the home and sometimes did not cook meals for their children, or because they had trouble getting the foods their children liked to eat.

"The types of foods that he likes are not always available." (Doer)

"My work as I can't feed him when I am at work." (Doer)

- **Perceived susceptibility**

Non-doers were 2.7 times more likely to say it is 'very likely' their child will become malnourished in the coming year ($p=0.017$). Doers were 3.5 times more likely to say it is 'not likely at all' their child will become malnourished in the coming year ($p=0.002$).

There was no significant difference between Doers and Non-doers on the action efficacy of the behaviour. Most respondents said if they feed their child five solid meals a day, their child is 'not at all likely' to become malnourished (Doers: 71%, Non-doers: 81%).

- **Perceived severity**

There were no significant differences between Doers and Non-doers in terms of views on the **severity** of malnourishment. Most respondents viewed potential malnourishment in their child as a 'very serious' problem (Doers: 64%, Non-doers: 70%).

- **Divine will**

There was no significant difference between Doers and Non-doers on views on divine will. Most respondents said a child becoming malnourished is not due to God's will (Doers: 73%, Non-doers: 70%).

Participants were asked what God, or their religion teaches them about how often to feed their child. Most respondents (Doers and Non-doers) responded 'I don't know' or that they thought it was in the Quran but did not remember anything specific about it.

"Yes, but I can't remember any hadith or Quran verse." (Doer)

"I don't know." (Non-doer)

- **Culture and policy**

There was no significant difference between Doers and Non-doers on whether their culture has any **taboos** against feeding their children five solid meals a day. The majority of respondents said there are no taboos against this behaviour in their culture (Doers: 87%, Non-doers: 85%).

Of those who said there are taboos, they mentioned being afraid of feeding their child too much and making them obese; not giving their children certain ingredients they believe are unhealthy for their children like UNRWA milk and guava (“*too hard*”); and the fear of other mothers judging them or being envious because they cannot afford to feed their children five meals a day.

“Yes, my brother says that the UNRWA milk is unhealthy, so he asked me to stop giving him UNRWA milk.” (Non-doer)

“Eating too much harms the child. The child gets used to eating a lot.” (Doer)

Both Doers and Non-doers brought up that they worry about constipation as a potential disadvantage of feeding their children five meals a day.

“Disadvantages for solid food because it causes constipation.” (Non-doer)

When asked if there are any policies that make it easier to feed your child five times a day, there was no significant difference between Doers and Non-doers. Fifty-eight percent of Doers said ‘yes’ and 55% of Non-doers said ‘no’.

Most respondents mentioned learning about feeding their children five times a day from seminars, appointments, brochures, and posters in clinics (UNRWA was the most commonly mentioned, followed by an NGO and government clinics). A few mentioned schools or the Internet.

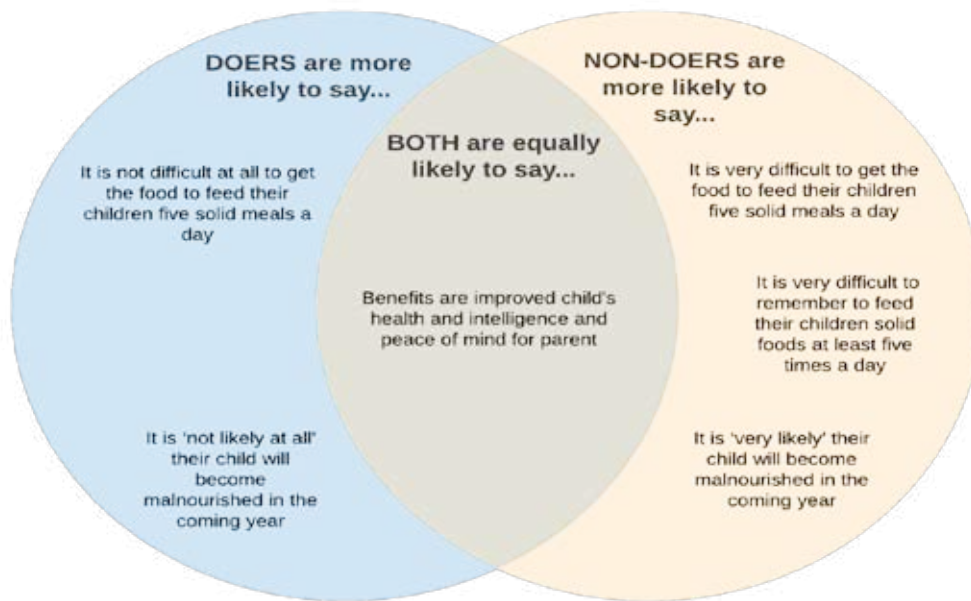
“I learned a lot from UNRWA clinics when I used to take my baby to vaccination department. They told me to give 5 meals for my baby every day while I used to give her only 3 meals. I feed her snacks like fruit, honey with nuts.” (Doer)

Summary of Behaviour 4

The above findings for *children 6 to 24 months feeding frequency* are summarised in Figure 5.

Figure 5. Summary of findings: Behaviour 4

Figure 4. Comparing Doers and Non-doers of Behaviour 4: Children 6 to 24 months feeding frequently (5 times per day; 3 meals and 2 snacks)



Similarities and differences between Gaza and West Bank

In the West Bank, the determinants that were significant included perceived self-efficacy, positive consequences, negative consequences, social norms, access, and divine will. Like Gaza results, Doers were 3 times more likely to say that it is easier for them to feed their child 5 times a day because their child likes to eat. Doers were 2.8 times more likely to say, "The food is available" compared Non-doers. Non-doers were 2.7 times more likely to say that their child does not accept some kinds of foods. Doers were 11.5 times more likely to say that an advantage is that their child feels full when they feed them five times a day. Non-doers were 3.3 times more likely than Doers to say that the disadvantage of feeding their child five times a day is that it will cause their child to be obese. Doers were more likely to say that their husbands and their mothers approved of them feeding their baby semi-solid and solid foods at least five times each day. Non-doers were 8.2 times more likely to say that it was very difficult to feed their baby at least five times a day. Non-doers, more than Doers, were likely to say that it is God's will if a child becomes malnourished. Doers were more likely than Non-doers to say that the Quran has teachings that address and encourage child feeding.

3.1.5. Behaviour 5: Children 2-5 years old eating iron rich food groups

- **Self efficacy**

When asked what makes or would make it **easier** to feed their children high iron foods, all respondents said it is or would be easier if *'my child liked meat'* and if *'I had the availability of money for meat'*.

"If my daughter accepts all types of food. Improve financial situation."
(Non-doer)

"Everything is available because my husband works." (Doer)

However, *'availability of money for meat'* was more commonly listed by Non-doers than Doers, who more often responded it is easy to do because *'my child likes to eat meat'*.

"Money, it makes it easy to buy meat." (Non-doer)

"What makes it easy is that my child accepts the food and likes it very much, and I like to feed my children and care about their food." (Doer)

Doers also said it was easy for them because *'I know the health benefits for their child'* and *'I prepare food in small pieces, so it is easier to eat'*.

"Because I know the importance of iron rich food" (Doer)

- **Perceived barriers of action**

Non-doers were 10.9 times more likely to say it is *'very difficult'* to remember which foods are high in iron when feeding their children ($p=0.014$).

When asked what makes doing the desired behaviour **difficult**, all respondents said a *'lack of money to afford meat'* and *'child being fussy, stubborn, or having a low appetite'*.

"Lack of money." (Doer)

"Lack of money because my husband does not work." (Non-doer)

"My son refuses all types of food." (Non-doer)

The Doers also said it was difficult due to a *'lack of time to cook'*, while Non-doers did not mention this barrier.

"When I am very busy with my kids, I can't cook, and I have to make sandwiches for my family, or I ask wives of brothers in law to give me food." (Doer)

There were no differences between Doers and Non-doers when discussing the disadvantages of performing the behaviour. Many respondents said there were *'no disadvantages'*. Those who mentioned disadvantages said they feared *'too much protein would cause gout, kidney problems, or obesity'*; that a meat-heavy diet would cause *'constipation and digestion problems'*; or that if they feed only one of their children more meat than the others, a disadvantage would be *'their siblings would be deprived of food'*.

"May be cause gout." (Doer)

"His siblings may be deprived from good food if we bought only for [child's name]." (Non-doer)

- **Perceived benefits of action**

There were no differences between Doers and Non-doers on perceived benefits of feeding their children high iron foods.

All respondents said the advantages of feeding their children high iron foods are *'improved health and development, weight gain', 'child has a better mood, is happier, has more energy'*, and the child *'becomes intelligent and can concentrate better'*.

"Give immunity to the child. Increase blood level. Strengthen the body." (Doer)

"Improve the child intelligence and increase concentration. Strengthen blood and increase activity." (Doer)

"Strengthen the bone and build the body and improve the blood level." (Non-doer)

- **Social norms**

There were no significant differences between Doers and Non-doers on who they said approves or disapproves of them doing the desired behaviour. The most common response for who **approves** from Doers was *'my husband'* (51% of Doers said this) and *'family (other and unspecified)'* from Non-doers (50% of Non-doers this).

The majority of respondents said *'no one'* **disapproves** (Doers: 80%, Non-doers: 91%) (Table 4).

Table 4. Percent of Doers and Non-doers who said someone in their life approves or disapproves of them doing the behaviour.

	Approves		Disapproves	
	% of Doers who gave response	% of Non-doers who gave response	% of Doers who gave response	% of Non-doers who gave response
Mother	18%	30%	2%	0%
Mother-in-law	31%	20%	7%	2%
Husband	51%	33%	2%	4%
Family (other and unspecified)	40%	50%	4%	2%
No one	18%	17%	80%	91%
Non-family	11%	20%	2%	0%

- Access**

Non-doers were 3.8 times more likely to say it is *'very difficult'* to get high iron foods to feed their child every day (p=0.001). Doers were 2.4 times more likely than Non-doers to say it is *'somewhat difficult'* (p=0.022).

- Perceived susceptibility**

There was no significant difference between Doers and Non-doers on perceived **susceptibility**. The most common response was that it is *'not likely at all'* that their child will become anaemic in the coming year (Doers: 53%, Non-doers: 39%).

There was no significant difference between Doers and Non-doers on perceived action efficacy of the behaviour. Most respondents said it is *'not likely at all'* that their child will get anaemia if they feed them high iron foods every day (Doers: 67%, Non-doers: 65%).

- Perceived severity**

There was no significant difference between Doers and Non-doers in terms of perceived **severity**. Most respondents said it would be *'very serious'* if their child became anaemic (Doers: 62%, Non-doers: 67%).

- **Divine will**

There was no significant difference between Doers and Non-doers on the perception of divine will in relation to anaemia. Most respondents said a child becoming anaemic is not due to God's will (Doers: 76%, Non-doers: 72%).

When asked what their religion says about feeding high iron foods to their children, most respondents said they did not know or that their religion says something about taking care of children but did not provide specifics about high iron foods.

"Yes, generally our religion instructions show that we should take care of our kids." (Doer)

"Yes, but I don't remember the details." (Non-doer)

- **Culture and policy**

There was no significant difference between Doers and Non-doers on whether there are **cultural taboos** against feeding children high iron foods in their culture. The vast majority of respondents said 'no' there are no taboos (Doers: 93%, Non-doers: 87%).

Those who said 'yes' were asked to explain which taboos exist in their culture. Most said it would be considered "opulence" or "luxury" to buy and eat meat every day since they live in a poverty-stricken community.

"It is considered flaunting and luxury." (Non-doer)

"If I would feed my kids meat every day people would say, you are arrogant. What an opulence! You think that nobody else live in the area!" (Doer)

Doers were 2.3 times more likely to say there are policies or regulations that make it easier to feed their children high iron foods every day ($p=0.041$). Non-doers were 2.3 times more likely to say there are not policies or regulations that make it easier to feed their children high iron foods every day ($p=0.041$).

Of those who said there are policies or practices in place, they specified they had seen information about feeding their children iron-rich foods in brochures and posters in clinics; during sessions or consultations at clinics; in school or university; and while on the internet or watching TV.

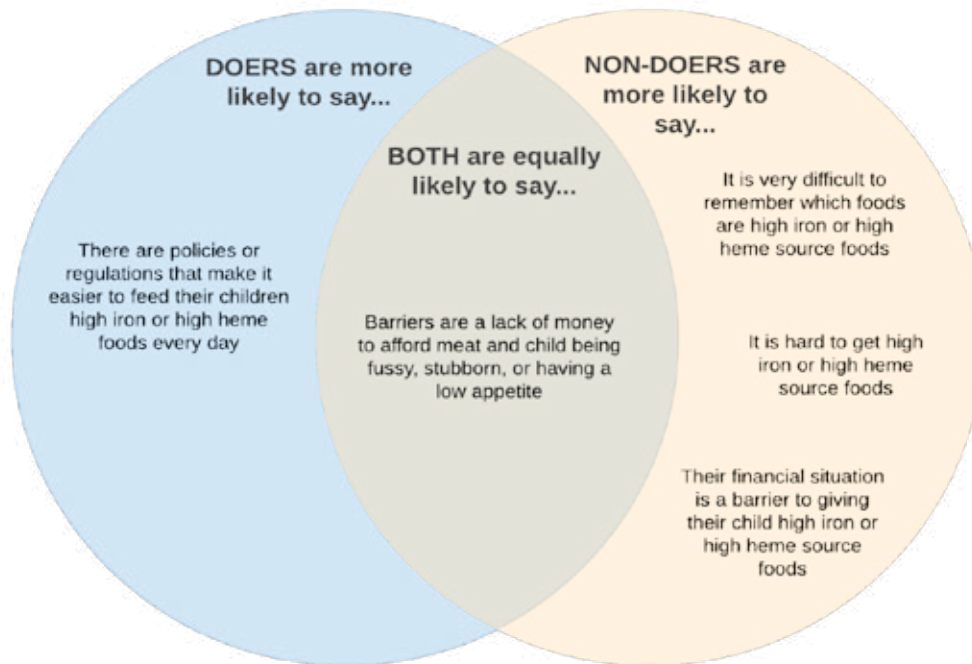
"There are posters on the walls at clinics about iron rich food and its benefits." (Non-doer)

"Health education session in UNRWA clinic or health women's centre. Booklets in an NGO Association." (Doer)

Summary of Behaviour 5

The above findings for *children 2-5 years old eating iron rich foods* are summarised in Figure 6.

Figure 6. Summary of findings: Behaviour 5



Similarities and differences between Gaza and West Bank

In the West Bank, when asked what makes or would make it difficult to feed iron rich foods to their child every day, Non-doers were 11.8 times more likely to say that they did not have money to purchase high iron foods. When mothers were asked who are, or would be, all the people that approve of her feeding iron rich foods to her child every day, Doers were 6.3 times more likely to state that their husbands would approve of the behaviour. When asked how difficult it is to get, or would be to get, iron rich foods to feed to their child every day, Non-doers were 23.8 times more likely to say that it was “very difficult” to get high iron foods than Doers. On the other hand, Doers were 8.5 times more likely to say, “It is not difficult at all” than Non-doers. When mothers were asked when they prepare meals for their child, how difficult is it or would be to remember which foods are rich in iron, Non-doers were 2.7 times more likely to say that it is somewhat difficult to remember what foods are rich in iron. On the other hand, Doers were 3.6 times more likely to say, “It is not difficult at all to remember which foods are high iron foods” than Non-doers. When asked how likely is it that their child will become anaemic if they feed him/her iron rich foods every day, Non-doers were 4.1 times more likely to say that it was ‘somewhat likely’.

3.1.6. Behaviour 6: Pregnant and lactating women eating iron rich food groups

- **Self efficacy**

When asked what makes or would make it **easier** to eat high iron foods every day while pregnant or lactating, all respondents said it is or would be easier if *'I had the availability of money for food'* and if *'I liked to eat meat/had an appetite for meat'*.

"This food type is available at home and I like these types of food." (Doer)

"If the food was available, because my husband doesn't meet our needs due to his debts." (Non-doer)

"According to our financial situation and if the money is available, I will buy these types of foods." (Non-doer)

Doers also said it was easier for them to eat these foods because they know it is healthy for them and will contribute to the health of their child.

"I am a nurse and I know the importance of eating high-heme source foods." (Doer)

- **Perceived barriers of action**

There were no significant differences between Doers and Non-doers on how **difficult** it is to **remember** which foods are high in iron when preparing food for themselves while pregnant or lactating. The most common response for Non-doers was it is *'not difficult at all'* (Non-doers: 49%), the most common responses for Doers were *'somewhat difficult'* and *'not difficult at all'* (Doers: 47% for both responses).

When asked what was difficult about eating high iron foods every day during pregnancy or lactation, most respondents said the *'smell and taste of meat is nauseating while pregnant'* and they lacked the *'availability of money'* to afford meat.

"When I smell meat, I feel dizziness, when I am pregnant." (Doer)

"Pregnancy cravings and nausea." (Non-doer)

"Money is not available to buy it." (Doer)

"The financial situation is bad. We can only provide these foods once a week." (Non-doer)

In addition, some Doers said *'my family members do not like meat'*; this was a barrier for them.

All respondents said disadvantages of eating a lot iron would be gout, obesity, and digestion problems.

"Maybe it causes some diseases like obesity and Gout disease." (Non-doer)

*"These food and other food too may cause hyperacidity in my stomach."
(Doer)*

- **Perceived benefits of action**

Participants were asked about the benefits of doing the behaviour. All said eating high-iron foods would benefit their and their child's health. They mentioned: stronger body and blood, more energy, more milk during lactation, and increasing the foetus's intelligence.

"Helps the formation of the foetus and helps the mother to be healthy in the future." (Doer)

"Improve health, improve blood level, increase my milk so improve my baby's health." (Non-doer)

- **Social norms**

There were no significant differences between Doers and Non-doers on who they said approves or disapproves of them doing the desired behaviour. The most common response for who approves was *'my husband'* (Doers: 53%, Non-doers: 47%).

Most respondents said *'no one'* disapproves (Doers: 82%, Non-doers: 80%) (Table 5).

Table 5. Percent of Doers and Non-doers who said someone in their life approves or disapproves of them doing the behaviour.

	Approves		Disapproves	
	% of Doers who gave response	% of Non-doers who gave response	% of Doers who gave response	% of Non-doers who gave response
Mother	40%	40%	0%	2%
Mother-in-law	31%	27%	7%	7%
Husband	53%	47%	2%	4%
Family (other and unspecified)	42%	44%	13%	7%
No one	7%	4%	82%	80%
Non-family	22%	11%	2%	2%

- **Access**

Non-doers were 6.6 times more likely to say it is '*very difficult*' to get high iron foods to eat every day ($p=0.000$). Doers were 2.4 times more likely than Non-doers to say it is '*somewhat difficult*' ($p=0.017$).

- **Perceived susceptibility**

When asked how likely it was that they would become anaemic while breastfeeding or pregnant, Non-doers were 4.2 times more likely to say '*very likely*' ($p=0.001$) and Doers were 2.8 times more likely to say '*not likely at all*' ($p=0.009$).

There was no significant difference between groups when asked about the action efficacy of the behaviour. Most respondents said it was '*not likely at all*' that they would become anaemic if they ate high iron foods every day while pregnant or breastfeeding (Doers: 71%, Non-doers: 60%).

- **Perceived severity**

Non-doers were 2.5 times more likely to say it would be '*somewhat serious*' if they became anaemic ($p=0.042$) and Doers were 3.5 times more likely to say it would be '*not serious at all*' if they became anaemic ($p=0.045$).

- **Divine will**

There was no significant difference between Doers and Non-doers on the perception of divine will around anaemia. Most respondents said becoming anaemic is not due to God's will (Doers: 82%, Non-doers: 67%).

Participants were asked if their religion teaches them about eating high iron or high iron foods while pregnant or lactating. They could respond 'yes', 'no', or 'I don't know'. Non-doers were 2.9 times more likely to respond, 'I don't know' (p=0.012).

- **Culture and policy**

There was no significant difference between Doers and Non-doers on whether there are **cultural taboos** or **myths** against pregnant or lactating women eating high iron foods daily. The majority of respondents said 'no' there are no taboos or myths (Doers: 84%, Non-doers: 89%).

Those who said 'yes' were asked to explain which taboos exist in their culture. Many said their mother-in-law would disapprove of them asking their husband for meat all the time because it would be expensive and "wasting the husband's money".

"When the mother-in-law notices that her daughter-in-law keeps asking her husband to buy meat for her, mother-in-law will think that her daughter-in-law insists to destroy her husband by wasting of his money in buying food to prevent him getting married to another woman!" (Non-doer)

There were no significant differences between Doers and Non-doers on whether there are any policies or recommendations that make it more likely that pregnant and breastfeeding women eat high iron foods every day. Most respondents said 'yes', there are policies or regulations (Doers: 76%, Non-doers: 82%).

Respondents were asked to explain what they meant, and most said they heard about eating high iron food during pregnancy and lactation from health clinics: through posters, brochures, seminars, doctors' appointments, and workshops.

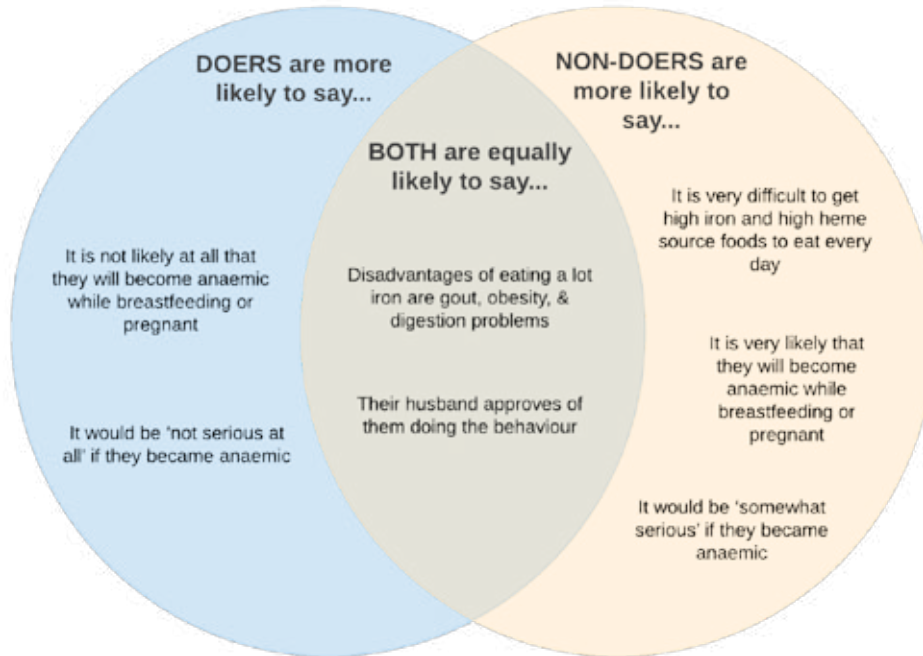
"In health clinic team always advise us to eat iron rich food." (Doer)

"There are regulations in Al-Daraj government clinic about this topic, and in health education sessions they tell us about the importance of these foods during the pregnancy and breastfeeding." (Non-doer)

Summary of Behaviour 6

The above findings for *pregnant and lactating women eating iron rich foods* are summarised in Figure 7.

Figure 7. Summary of findings: Behaviour 6



Similarities and differences between Gaza and West Bank

As mentioned previously in the report, this behaviour has changed from “Pregnant and lactating women drink coffee or tea either one hour before or one hour after meals” into “pregnant and lactating women eating iron rich foods”. However, the results for the Pregnant and lactating women drinking tea or coffee either one hour before or after a meal showed that Doers were 3.5 times more likely to say that what makes it is easy to space drinking coffee or tea at least one hour before or after meals is because they reserve coffee and tea drinking for social times. Doers were 6.7 times more likely to say that what makes it easy to space drinking coffee or tea is that they like to drink it alone and not with foods. Additionally, Doers were 2.7 times more likely to say that it is easy to space drinking coffee and tea from meals because it was there habits to do so. When respondents were asked what makes it difficult to space drinking coffee and tea at least one hour before or after meals, Non-doers were 7.5 times more likely to say that the fact that having coffee and tea with meals is a habit that they have. Non-doers were also more likely to say, “All of my friends and family want coffee or tea with their meal” than Doers. Non-doers were 3.6 times more likely to say that it was somewhat difficult to remember to space drinking coffee or tea at least one hour before or one hour after meals than Doers. Non-doers were more likely to say that it is a social duty to offer coffee and tea with meals and that their family and friends expect to receive these drinks with meals.

3.2. Qualitative interview Findings: Residents

About the participants

In total, 37 women from across Gaza were interviewed, of whom four were pregnant and nine were breastfeeding at time of the interview. The average age was 29.84, with an age range of 19-55 years old.

In the West Bank, 6 women and 1 husband were interviewed, of whom two were mothers of 2-5 years old children, an exclusive breastfeeding mother of 6 months child, one pregnant, on mother of 4 months child who is breastfeeding and giving bottle milk and her husband was interviewed, and a continued lactating mother. The average age was 33.16, with an age range of 28-38 years old.

Further details on the participants are presented in Appendix I.

3.2.1. Nutrition - knowledge, attitudes and practice

Knowledge of healthy foods

Participants were asked what foods they thought were healthy, or what foods a person who is healthy would eat. There was high awareness around what healthy foods included, with all participants saying fruits, vegetables, and meat. Many participants also talked about needing to drink lots of water. They identified “lots of carbohydrates”, caffeine, too much sugar, and fried food as unhealthy.

“Water is very important, fruits, green vegetables, where chicken and meat do not compete these three things especially spinach and lettuce have high nutritional value.” (female, 28, housewife, exclusive breastfeeding)

“Healthy food, they eat vegetables, fruits, cholesterol-free food, and they do not eat too much oils and fries. Lots of fluids, water of course is the most important thing, then may be tea, mint and anise drinks.” (female, 39, housewife, lactating)

“He [a healthy person] eats vegetables, fruits and he can eat steaks without bread, I mean he avoids carbohydrates and like that, and he drinks water and fresh juices.” (female, 30, housewife, lactating)

Perception of a ‘healthy person’

When asked what a ‘healthy person’ looks like, most participants described someone with a proportional, medium build (“not too fat and not too thin”) and nice “glowing” or “red” skin, not “yellow”. Some included that the person would exercise

or be active and have energy throughout the day.

“He is a normal guy with the ideal body weight for his height, medium muscular body, glowing skin no pale or yellow.” (female, 26, housewife, did not breastfeed)

“By his skin texture, strong hairs, clear eyes, walks with strong leaps, is active, especially, if they are children, they will walk strongly and if they take calcium, they are much stronger opposite to those who don’t.” (female, 28, housewife, exclusive breastfeeding)

“A healthy person with a balanced body weight neither fat nor thin, neither long nor short, shows vitality and activity, appears from his face, if it is yellow, or not able to walk. We can know easily when the person is healthy.” (female, 39, housewife, lactating)

[Vitamins and minerals](#)

All participants said vitamins and minerals were necessary for good health.

“For body growth, there are vitamins that prevent disease and help a person to be healthy.” (female, 22, housewife, lactating)

“I think women need all vitamins to be active and to resist disease.” (female, 33, housewife)

Most were able to name specific vitamins and minerals (the most mentioned was vitamin C; see Table 6). Whilst some of the participants had in-depth knowledge, other participants only had basic knowledge of them (“calcium is in milk”) or only knew the name and nothing more. This meant that, although they knew names, they did not really understand the importance and the full benefits for them and their families.

“All vitamins, vitamin A and vitamin D and vitamin C. I know that all the vitamins strengthen the body, but I don’t know exactly what vitamin A do. I forgot this information.” (female, 39, housewife, lactating)

“I don’t remember much about vitamins and minerals. I know that there are vitamins for cold in oranges and flu, and vitamin A is in carrots.” (female, 30, housewife)

“Vitamin B12, A, C and much more. [Minerals] Not much but I know about iron and calcium.” (female, 26, housewife, did not breastfeed)

Table 6. Knowledge around vitamins and minerals

Vitamin and mineral	Frequency of mentions	Knowledge, including beliefs around the benefits and which foods contain the vitamins and minerals mentioned
Vitamin C	17	<ul style="list-style-type: none"> • Found in oranges and other citrus fruits, and kiwi fruits • Benefits: Helpful for skin and to support iron absorption. Strengthens the immune system
Calcium	8	<ul style="list-style-type: none"> • Found in milk • Benefits: Builds bones
Vitamin D	13	<ul style="list-style-type: none"> • Found in sun, although can be taken through food (no food explicitly mentioned) • Benefits: Helps build bones, good for the skin, reduces fatigue
Vitamin A	12	<ul style="list-style-type: none"> • Found in carrots • Benefits: Improves eyesight and memory, helps in the "growth of the body"
Vitamin B	2	<ul style="list-style-type: none"> • No additional details given, just name of vitamin mentioned
Vitamin B12	7	<ul style="list-style-type: none"> • Found in nuts • Benefit: "Important for nerves and prevents numbness"
Iron	15	<ul style="list-style-type: none"> • Found in spinach, red meat, liver, dark green vegetables and beetroot, legumes, and dried fruits (which are black in colour) • Benefits: Improves vision, reduces hair loss and fatigue. Prevents anaemia
Phosphorous	3	<ul style="list-style-type: none"> • Found in fish • No details on benefits given
Zinc	4	<ul style="list-style-type: none"> • Found in egg yolk • Benefits: helps healthy skin and nails, supports growth, and reduces fatigue
Potassium	2	<ul style="list-style-type: none"> • Found in bananas and watercress • No details on benefits given
Vitamin E	4	<ul style="list-style-type: none"> • No details of foods in which Vitamin E is found • Benefit: "Help in the growth of the body"
Omega 3	2	<ul style="list-style-type: none"> • Found in fish • No details on benefits given
Magnesium	6	<ul style="list-style-type: none"> • Found in watercress, • good for "joints", "bone building and muscles", and helps reduce fatigue

A few of the participants had an exceptional knowledge on the different vitamins and minerals – often through their work in the health field. They were able to name different vitamins and minerals, which foods contain them, and their effect on the body.

"Vitamins and minerals are essential for our bodies, calcium and potassium, vitamin A, D, C, B12, found in carrots and calcium in dairy"

products and zinc in egg yolk. Vitamins and minerals are important because lack of them causes health problems, such as lack of calcium leads to osteoporosis, so it needs to be taken well, and iron deficiency causes anaemia, zinc deficiency causes skin and nail problems. Potassium is abundant in bananas; zinc is found in vegetables and fruit.” (female, 35, housewife, discontinued breastfeeding)

“Meat contains iron and fish contain a percentage of magnesium and zinc that are important for children under two years because they are useful for their growth and height. It is necessary to feed fish to children from one year to two years so as not to have stunting or shortness in height. These foods are rich in iron, which also protects from anaemia.” (female, 30, nurse, exclusive breastfeeding)

Iron and anaemia

All participants said they know what anaemia is and were able to define it correctly as an iron deficiency and lower-than-normal red blood cell count. Further, participants were able to identify the symptoms of anaemia as feeling tired and weak and having symptoms like dizziness and headaches.

“Yes, and it is due to lack of iron as I mentioned earlier and due to this the child loses balance and carry on normal daily activities.” (female, 28, housewife, exclusive breastfeeding)

“Anaemic people get dizzy and weak and lazy, so they need iron as it is important balanced body, being active and for health.” (female, 26, housewife, did not breastfeed)

“Yes, anaemia means that the blood's rate falls below 10, and it causes dizziness, tiring, exhausting and headache, and what I know is that we should not have anaemia, I mean we must keep our blood good.” (female, 30, housewife, lactating)

All the participants could name foods that contain iron, though they were often not specific beyond the food group. They said spinach and other green, leafy vegetables, as well as meat, eggs, legumes, and fruits contain iron.

“Spinach as well as green vegetables and fruits in general.” (female, 28, housewife, exclusive breastfeeding)

“I think it strengthens the blood. I think spinach contains iron and all leafy

vegetables, and meat also, I think, contains iron.” (female, 39, housewife, lactating)

“I know spinach has iron through cartoon programs on tv which I watch with my children.” (female, 30, housewife)

“You get iron in general from fruits and vegetables, also meat and eggs.” (female, 24, lawyer, mixed feeding)

Many participants knew they needed iron when they were pregnant to prevent anaemia. Most have had their and their children’s haemoglobin tested before and knew there was a number that indicated low haemoglobin (and therefore anaemia), though did not all say the same number as the cut-off.

“Iron is for strengthening blood system as a pregnant woman needs it even after childbirth and iron is transferred to the foetus. The child also needs vitamins & minerals which is available in pharmacy.” (female, 28, housewife, exclusive breastfeeding)

“A person with a haemoglobin count under 10 has anaemia. When I was pregnant and conducted a blood test, I learnt that a person with a count of 9 or 10 is anaemic.” (female, 30, housewife)

“Yes, I heard [of anaemia], that red blood cells (RBCs) are low and haemoglobin becomes weak. Children aged 2 years and above should have a haemoglobin ratio of 11.” (female, 31, English Instructor)

A few of participants also talked about avoiding tea whilst eating to ensure iron absorption.

“I used to drink tea with the meal, but I changed to drink milk after one hours. Because tea causes anaemia. This is what the doctor said in the clinic during the seminar about anaemia.” (female, 32, housewife, pregnant)

“Since the child is suffering from anaemia, I take much care about his food, and I prevent him from drinking tea, cola and soft drinks, so I always follow up on him. When he gets sick, I take him to the clinic, I mean I am interested about any topic related to my child’s health because when he gets sick and be tired, it worries and exhausts me too.” (female, 19, housewife, lactating)

3.2.2. Existing habits and behaviours, including dietary diversity

Usual meals

For most participants, breakfast consisted of bread, cheese, eggs, thyme with oil, and milk or tea. A few participants mentioned also having chocolate spread, jam, cereal (cornflakes), or fruit.

“Cheese and thyme with oil, boiled eggs and jam. With bread.” (female, 39, housewife, lactating)

“Dairy products such as cheese and labneh. The breakfast can be sandwiches and I can different kinds of dairy and I can fry eggs and so on.” (female, 30, housewife, lactating)

“All types of cheese, thyme and olive oil, for my daughter milk sometimes with cornflakes as a meal and tea.” (female, 28, housewife, exclusive breastfeeding)

However, some of the participants talked about consuming more unhealthy breakfasts – mainly tea with biscuits or cakes, often due to time limitations.

“If it’s a school day, I eat with the kids in the morning before going to school, tea with milk with biscuits or cake, I make them sandwiches to eat at school and then they take their money and go to school. On vacation days: eggs, cheese, thyme, bread and tea (miscellaneous breakfast).” (female, 30, housewife, mixed feeding)

Similarities and differences between Gaza and West Bank

In the West Bank, there was the same perception of a healthy person; he is not fat or thin, glowing, active and has energy. Although the first answer to the question how a healthy person looks like was “fat”, after thinking they elaborated further by saying “medium size”. In contrast to the findings from the Gaza Strip, the women in West Bank had very little information about vitamins. Even if they were able to mention the names of few vitamins and minerals, they were not sure what are the sources or benefits of them. Only two of them could distinguish between the vitamins and minerals as they either had a course on health and nutrition or attended WFP Nutrition awareness sessions. In West Bank they do not do blood tests unless they are sick or their doctor has asked for it, this meant they were not really concerned about anaemia. Some of them could list iron rich foods, such as spinach, mlukhyia (green leafy vegetables) and lentils, others mentioned meat and poultry. Most of them linked the iron deficiency to anaemia, while the others linked it to bone function and texture.

Dinner was usually a light meal for most participants. They and their children typically have a cheese sandwich and fruit or fruit juice.

Dinner "A light one, mostly fruits, vegetables or cheese or yoghurt, light snacks." (female, 26, housewife, did not breastfeed)

"Like breakfast, a sandwich of cheese or jam, Nescafe or tea, I mean a small meal." (female, 39, housewife, lactating)

"Dinner is limited to a cheese sandwich and glass of juice or an apple." (female, 24, lawyer, mixed feeding)

Most respondents said they eat meals together with their children. However, some said they do not due to different work schedules, early starts, and so on.

"After work we start a new round, we eat lunch at home and helping kids with their homework and studies." (female, 35, employee in MOH, lactating)

Only when the children were small (had 'no teeth'), they ate different foods and sometimes at different times.

"My daughter does not eat anything that we eat, because she does not have teeth yet, so I prefer to feed her mashed food since she likes mashed fruit, eggs and potatoes. I feel that she likes these foods and asks for eggs and potatoes." (female, 26, teacher, pregnant)

"I make milk for the young children, and I mixed it with bread for the old daughter and with biscuits for younger to be semi solid, but the older I prepare fried potatoes or Falafel sandwiches." (female, 32, housewife, pregnant)

Most commonly, if the participants did not eat with their children, they skipped a meal. However, they felt children should not skip meals.

"I don't like breakfast, just a cup of Nescafe. But I prepare breakfast for my kids, like eggs, halawa, cheese and thyme, it's very important that my son has breakfast before he goes to kindergarten..." (female, 35, housewife, discontinued breastfeeding)

"My son has lunch at 4 p.m. and sleeps at 7 p.m., so he doesn't have dinner, but he drinks a glass of milk before going to bed. My daughter

may eat fruit or sandwiches of thyme. I don't have dinner. My husband and mother-in-law don't have dinner too. We may drink coffee, instead.” (female, 35, housewife, discontinued breastfeeding)

Frequency of eating

When it came to frequency, most participants said they and their family eat three main meals a day and sometimes a snack or two in between. It was believed children should eat the same frequency of meals, with snacks throughout the day.

“Approximately three meals (breakfast, lunch, dinner) and I can eat a snack between them about twice.” (female, 30, housewife, lactating)

“[Child's meals in a day] Mostly 3 times.” (female, 28, housewife, exclusive breastfeeding)

“Twice, Breakfast and lunch. Just middle-sized dish, I don't eat legumes because of the colon problem, I eat zucchini, boiled potatoes, grilled meat and fish.” (female, 29, accountant, child aged 2-5 years old)

“Three meals per day and mini meals.” (female, 32, housewife)

“Frequency: I have the main meal, which is lunch, plus Nescafé.” (female, 35, housewife, discontinued breastfeeding)

A few participants said they only eat two meals a day while one participant said she eats whenever she is hungry, as she is lactating and feels she should eat throughout the day.

Interviewer: “How many times do you eat in a day?”

Participant: Two” (female, 30, housewife)

“For me I eat sporadically, I keep eating as I am a lactating mother, I eat vegetables, fruits and so on.” (female, 28, housewife, exclusive breastfeeding)

A few other participants stressed the need to eat more calories whilst breastfeeding, or that they should eat more of certain foods.

“Yes, such as halva, dates, and things that contain milk and induce milk for children, and natural sweeteners such as honey and wet dates and all fruits and vegetables. Therefore, any healthy eating is useful for breastfeeding.” (female, 30, nurse, exclusive breastfeeding)

"Lactating women need protein, 500 calories, i.e., the need of protein lactating mother is greater than the needs of pregnant women, and also the breastfeeding women need a proportion of calcium and iron to be present in her milk." (female, health educator, child between 2-5 years old)

Despite the breastfeeding mothers knowing that they should consume more calories when breastfeeding, a couple mentioned the need to watch their weight.

"Small dish in order to determine the amount I eat because I am afraid to increase my weight." (female, 30, nurse, exclusive breastfeeding)

[Encouraging healthy eating among children](#)

A few participants discussed how they are trying to eat healthy and give their children healthier meals. For example, one mother explained she waters down her child's tea because she knows it decreases iron absorption. Another mother makes sure to eat more salads and green vegetables because they are rich in vitamins and minerals.

"Boiled eggs, cheese and bread and mostly milk. I do not focus on tea, but my child likes to drink tea, so I try to mix it with water because I know that the tea absorbs iron and it should not be drunk too much by children." (female, 35, housewife, discontinued breastfeeding)

"I add a salad in each meal as green vegetables are rich in iron and strengthens blood, pomegranates which are good for immunity, clementine rich in vit C. we add these to the meals as they are available now in this season according to our need." (female, 26, housewife, did not breastfeed)

[Snacking](#)

Most participants said they and their children have snacks in between meals. They may have a sandwich, fruit, biscuits, tea or coffee, chips, or crackers as snacks. Most of the time the snacks consumed were unhealthy.

"Sometimes if lunch late, they take a small sandwich, a biscuit, something like this." (female, 39, housewife, lactating)

"Sometimes, like chips and biscuits [children]." (female, 28, housewife, exclusive breastfeeding)

"Yes, I might eat a biscuit and light snack like a cake." (female, 22, housewife, lactating)

Participants were asked if they feel worried about their children's snacking habits and most said they are unconcerned because they understand their children are hungry when there is a long time between meals and the snacks were "light".

"No [not concerned] as they do not eat a lot in between meals, and I cannot stop them as they are kids." (female, 28, housewife, exclusive breastfeeding)

"Sometimes I give them a tomato or cucumber in between meals. I do not eat in between meals. I'm not worried about them snacking because it is light." (female, 30, housewife)

"No [does not worry about children snacking], because there is a long time between the meal, for my children I do not worry about eating between meals." (female, 22, housewife, lactating)

Only one participant worried if her child's snacking habits resulted in stomach ache: *"My daughter eats a lot in between meals sometimes which causes stomach aches and I have to stop her." (female, 28, housewife, lactating)*

Food diversity

The participants appeared to eat already a diverse diet. Even those on more limited income talked about regularly eating a mix of foods.

"Approximately, for meat that is possible twice or three times, for fish, it is possible once a week or every two weeks depending on the situation." (female, 39, housewife, lactating)

"[Food diversity] I make a monthly food plan, cook vegetables and legumes for variety, and whatever is available to me. I cook lentils, for example, because it's useful, and it's also available, I cook legumes three times a week." (female, 30, housewife, mixed feeding)

"Diverse foods. I have yogurt, cheese, thyme, oil, tuna, boiled eggs and chopping cucumber and tomatoes. Olive is a full meal, so I always try to diverse in food." (female, 26, teacher, pregnant)

However, food diversity was not something participants appeared to spend much time thinking about and tended to eat a variety of foods based on existing habits, traditions, and preferences.

"These things are mostly by tradition; we follow whatever our families used to do." (female, 37, housewife, pregnant)

[Diet while pregnant](#)

There was high awareness of what foods should be consumed in pregnancy and the benefits of eating certain foods during this period.

"Take more calcium rich foods as I am pregnant otherwise the foetus will take it from my body and I will be weaker, so I have to take more of calcium and iron. Foods that I avoid are carbohydrates, but I take it in small quantities." (female, 26, housewife, pregnant)

"[healthy foods for developing foetus] Milk, cheese and fish develop intelligence and help to grow, build brain cells, nuts such as walnuts and proteins because in the period of the fourth and fifth month we must increase the proteins for the foetus body development." (female, 26, housewife, pregnant)

"Yes, I ate iron rich food a lot, avoided carbohydrates, red meat, increased the consumption of the iron in fruits and vegetables and cooked vegetables a lot to avoid harmful food." (female, 26, housewife, did not breastfeed)

Mothers were often highly motivated by the brain development aspect, as much as the physical development of the foetus.

"They told me to have healthy food, which helps the brain to develop." (female, 32, housewife, pregnant)

For those that had experienced miscarriages previously, they talked about eating healthily and avoiding certain foods to try and prevent this happening with future pregnancies. As one mother explained, who had previously had a miscarriage:

"Surely, a pregnant mother should be careful to eat healthy nutrients and avoid the unhealthy food which affecting her pregnancy and foetus..." (female, 26, teacher, pregnant)

Interestingly, one participant explained that, now that she is given iron supplements, she does not need to eat high iron foods.

"I don't focus [eating iron-rich foods], as long as I am taking iron pills from the UN clinic. They told me the iron pills are enough." (female, 26, housewife, pregnant)

Favourite meals

Participants were asked about their and their children's favourite foods and meals. There was little consensus on what the mothers' favourite foods were. They listed a variety of foods as their favourites, including rice, chicken, soup, eggs, milk, fruits, vegetables, and fish.

"[My favourite foods] rice, chicken and soups." (female, 28, housewife, exclusive breastfeeding)

"All kinds of food, especially grilled chicken, eggs, milk, and pomegranate." (female, 24, lawyer, mixed feeding)

"Fish." (female, 30, housewife)

As for the children, the mothers commonly said their children's favourite foods were rice-based dishes, like fish with vegetables and rice, kabsa, or maqluba. A few also mentioned pizza, noodles, other fast foods, and grape leaves.

"She likes cooked foods with rice, so I prefer to cook it and I add a salad too which is rich in vitamins." (female, 26, housewife, did not breastfeed)

"Always young children like cooked food with rice more. My children, they like fish and cooked vegetables with rice." (female, 39, housewife, lactating)

"Kabsa (rice with chicken), pizza, grape leaves and béchamel." (female, 30, housewife, lactating)

"Fast food like noodles is not what I want them to eat but my daughter loves noodles and chips." (female, 28, housewife, lactating)

Similarities and differences between Gaza and West Bank

In West Bank, as in the Gaza Strip findings, breakfasts consist of bread, thyme and oil, eggs (if available), and they drink tea (with sugar). Milk is usually consumed only by children. None of the mothers mentioned drinking milk at breakfast, but they all mentioned drinking tea. Some eat tea and biscuits (Karshalleh) for breakfast. For lunch, as in Gaza, the mothers in the West Bank eat cooked food (for example, vegetable stews) with rice, and they don't eat meat, poultry or fish on daily basis. They mostly eat fried vegetables, soups and stew with rice. For dinner, most of the time they eat something light or they only eat two meals a day. They all mentioned that they eat the same food as their children, and they all eat together. They encourage their children to eat the main meals and as well to eat snacks between meals, as they believe that they need food for growth and development, which will reflect on their health when they grow up. However, they might not have snacks either because of their poor financial situation and lack of food availability or due to the fact that their children are picky eaters. Although they believe that the pregnant and lactating mothers should eat more, this is not reflected on their practices; they did not change anything in their diet when they were pregnant or lactating. They did not avoid any foods during pregnancy or lactating, but they focused on certain foods like Halva, as they believe it boosts the production of breastmilk.

3.2.3. Risk perception towards nutrition-related behaviours

There was good knowledge of the risks surrounding anaemia, and the importance of eating high iron foods, although this awareness for some only came after they or a family member had been affected by poor health. Anaemia was also something that participants were concerned about.

"For me I felt dizzy and I went to the doctor, when I did blood test, I found my haemoglobin level was 10.5 as I was not eating iron rich foods. After that I started to eat foods containing iron continuously then my Hb level increased." (female, 26, housewife, pregnant)

Interviewer: "Is anaemia one of the things that worry you and your children?"

Participant: Of course, because it affects the balance of the child, if he has anaemia possibly leading to dizziness, so you should pay attention to diet to maintain good health and life." (female, 26, housewife, pregnant)

Many of the participants talked about cooking healthy meals for their family, and in particular their children, to avoid ill-health.

"[Health issues I am concerned about] Proper nutrition; I always like to make my children eat home cooked food; which is a complete nutritional meal prepared. They should not eat from outside, e.g., I feed them eggs and milk in breakfast, beans made in the house, lunch is a full nutritional meal which has calcium, protein and vitamins and of course they do not sleep without dinner." (female, 37, housewife, pregnant)

[Fear of chemicals and use of pesticides](#)

Many of the participants expressed fears in relation to the use pesticides and fertilisers, and others connected poor diets to health issues.

"The most thing we are worried about is the current situation in Gaza Strip like the economic situation in which parents aren't able to provide the healthy and proper nutrition to their children where the parents try their best to provide but they can't. Also, farmers use pesticides and fertilizers in their farms so it's hard to have healthy food. Also, Israel sprayed us with phosphorus during the last war which has side effects on our health." (female, 30, housewife, pregnant)

"I am afraid of toxins and pesticides, and that the food hybrids, or hormones, I am looking for organic food useful to me and them so that they are not affected by chemically treated food." (female, 28, midwife, pregnant)

"To a very large degree [concerned], we see young 37-year-old suffering from pain in her bones, her hands, legs, she suffers from osteoporosis in this young age. Many people are suffering like this. It is all related to unhealthy food and aerated drinks in Gaza Strip, it is abnormal." (female, 37, housewife, pregnant)

"I do not make dairy products at home (homemade dairy products), which are better than ready ones, since they contain preservatives which are chemicals and affect human's health." (female, 26, teacher, pregnant)

For one mother, this fear motivated her to use "pills" (vitamin supplements) instead of feeding her family the fresh foods: *"I don't think there's a lot of benefits in our food, because of fertilisers, so I use pills more as supplements." (female, 30, lab technician)*

Similarities and differences between Gaza and West Bank

In West Bank, they know about anaemia because they or one of their children became anaemic, and advised by the doctor to consume iron rich foods, they are concerned about being anaemic, as they know the symptoms of anaemia, e.g. being pale, yellow eyes and face, feel dizzy and nauseous. Unlike Gaza, in West Bank none has mentioned the fear of chemicals and use of pesticides, maybe because Gaza is more crowded and polluted, they think more about pesticides and chemicals than in West Bank.

3.2.4. Social and cultural norms

Shopping and cooking

Most mothers said their husband does the grocery shopping, while they decide what to buy and what to cook. In a few cases, the husband or mother-in-law helped cook.

"My husband does the food shopping. He and I decide what to buy. I'm the one who cooks, and I decide what to cook." (female, 24, lawyer, mixed feeding)

"My husband buys the groceries.... and I cook." (female, 31, English Instructor)

Decision making on food

Who made the decision on what foods to buy appeared to vary between households. In some houses, despite the husband doing the shopping, the mother (or occasionally the mother-in-law) decided what foods he should buy. In other households the husband decided, or it was a joint decision.

"She [daughter-in-law] is the one who decides most of the time, but sometimes if we want something, we tell her, she is the lady of the house and we're the guests." (female, 55, mother-in-law)

"My mother-in-law tells us what to buy. She decides what to cook and does the cooking, and I help her." (female, 33, housewife)

"A joint decision between us, when my husband is in the market, he calls me and consults me that there are many types of vegetables in the market, so if I tell him about a particular dish, he may not get it so as not to repeat the dish. Then, we decide on a particular dish." (female, 30, nurse, exclusive breastfeeding)

“He also decides what to buy because he knows the needs of the house, so at first time when we lived alone, I was writing the house needs, but now he knows what the needs are, and he buys them.” (female, 30, housewife, lactating)

Existing habits and traditions around foods consumed and breastfeeding

A few of the participants explained that change was difficult due to the existing cultures and traditions which exist in Gaza. However, to achieve real change, they postulated that a social movement was needed.

“It may help but not so much because one person is unable to change, so it requires more work because I cannot change the society. If everyone has this information, it may change the wrong habits and traditions of people.” (female, 30, nurse, exclusive breastfeeding)

“The same thing, if I have information that I can give to the woman and she can apply it or not, this requires the efforts of Civil Society Organizations in addition to community mobilization and the policy of lobbying and advocacy in order for everyone to work on a particular subject to modify the conduct and change the habits of people.” (female, health educator, child between 2-5 years old)

Showing affection

All the participants were asked how they showed love to their children. Most expressed love through “hugs” and “kisses”. They explained that, due to the economic situation, they did not show love through buying gift or sweet treats.⁵⁶

“Hugging and kissing them.” (female, 26, housewife, did not breastfeed)

“Play with them and sing to them and take photos with them to make memories.” (female, 22, housewife, lactating)

“Due to the poor economic situation I cannot provide them with anything I want them to have so I hug them a lot to show them love.” (female, 30, housewife)

“I express my love to them by hugs, and I tell them beautiful and encouraging words.” (female, 35, housewife, discontinued breastfeeding)

Only a few of the participants said they expressed love through giving the children what they asked for.

⁵⁶ Of note, this differs from other studies conducted by WFP in neighbouring countries.

"I express it, with care and attention and buy them toys and play with them and give them what they want, if they ask me something, I do it for them." (female, 39, housewife, lactating)

"By hugs and gifts." (female, 30, lab technician)

Special memories

Children's 'firsts' are very special and dear memories for the mothers.

"When I saw my son walking at the first time was a very beautiful feeling and it was self-confident, when I remember this moment rejoice a lot." (female, 22, housewife, lactating)

"Their beautiful acts like their first laugh and when they hold my hand, especially when I breastfeed them, they look for my hand and hold it. So, these things are beautiful." (female, 30, housewife, lactating)

"My son is my first child, every moment with him is a beautiful one, he feels happy from the simplest thing I do like buying him a toy." (female, 29, accountant, child 2-5 years old)

"The beginning of crawling, the beginning of walking, the beginning of speech. These are the most things that I rejoice about. I liked that my son was very intelligent, as I remember when he was one and three months old, he used to act that he was older than his real age." (female, 28, midwife, pregnant)

Most participants also talked about happy memories from when they were children, predominantly focused on the concept of 'freedom' – freedom to play or attend school and study. They looked back fondly and believed it was a more peaceful time for Gaza.

"When I was in kindergarten or the beginning of school in the first or second grade, the uniforms we used to buy would be put beside me during sleep because they are new I used to be excited for the first two or three days and then did not care about them." (female, 30, nurse, exclusive breastfeeding)

"I remember the school days, when I was going to school, friends at the school, and things like this." (female, 39, housewife, lactating)

"When we were kids, my sisters and I were fighting a lot, and for me this was a very beautiful period, it was true that we were fighting but it was

playing. When my parents go outside the house and leave us alone, we used to put the make-up and play groom and bride and dance.” (female, 22, housewife, lactating)

“Frankly, the memories were very sweet and there was no fear, but peace and comfort for you could play freely, for example, if we want to talk about the sound of bombing recently, my daughter could not enter the bathroom even without me because of the sound of bombing that she was hearing. During my childhood, I did not live the time of bombing and this loud sound and I did not feel scared.” (female, 31, English Instructor)

Similarities and differences between Gaza and West Bank

As in Gaza, most of the time the husband does the shopping, and in a few cases the mother-in-law does the shopping. However, the mother always cooks but the decision of what to cook is either done by the mother, husband, or collectively by all the family members.

Like in Gaza, the mothers in the West Bank show their love to their children by telling them how much they love them, hugs and kisses, but most of them also show their love by buying or getting their children what they need. They all remember the first act or move of their children, the same as in Gaza. Most of participants talked about happy memories when they were children and focused on the concept “freedom”, especially the freedom of going out. They all mentioned the dear memories from when they were at school.

3.2.5. Barriers and motivators to improved nutrition

Barriers to eating healthy

- **Cost**

Despite participants believing that they eat a healthy diet (or as healthy as they can eat within their income group), when asked what makes it difficult to eat a healthy diet, most of the participants immediately stated cost.

“People who cannot afford healthy food do not eat healthy food, but people who can afford healthy food will consume it.” (female, 22, housewife, lactating)

“The fact that many families are not able to buy food due to bad financial situation. They can buy fruits and vegetable once in a week & everyone wants variety in food.” (female, 28, housewife, exclusive breastfeeding)

“I think about it so I add lentils a lot as we cannot eat meat everyday as

my husband is not working, I cannot afford meat.” (female, 28, housewife, lactating)

“We cannot afford healthy food, e.g.: I cook green peas without adding meat like people do so it is not so healthy for my kids or when I buy beans by 2 shekels and just add Maggi stock, it is not so healthy.” (female, 30, housewife)

However, at the same time, participants slightly contradicted themselves, as later on in the interviews, many said they felt eating a health diet was achievable, but people enjoyed eating unhealthy foods. They believed that people choose to eat unhealthy foods due to stress, existing habits, and taste preferences.

“What affects health is anxiety, fear and stress. And psychological comfort and problems of eating unhealthy and sometimes lack of money that leads for not being able to buy healthy food, can be to a moderate degree.” (female, 22, housewife, lactating)

[Easy to eat healthy?] “It depends on each person’s habits and what they were raised up at and are used to, if the mother was raised in an environment where they always make a bowl of salad, yogurt and natural juice on the table and it becomes a habit.” (female, 28, housewife, exclusive breastfeeding)

“It is not easy. It needs desire and patience.” (female, 24, lawyer, mixed feeding)

“I try to make balance, but children love soft drinks. They want to drink when I am on a visit. At home I do not deal with them. As for chocolate, I allow them a little to prevent tooth decay.” (female, 31, English Instructor)

- **Temptation**

Fast foods, or junk/processed foods were often regarded as “too tempting” to refuse, especially as such foods were readily available, and healthy foods were regarded as more expensive.

“I think that no one eats very healthy foods because he wants to eat certain things, since we live in an environment full of things and temptations so if I abide in my home, I can go for visiting my mother, mother-in-law or any family gathering and couldn’t commit to eating healthy.” (female, 30, housewife, lactating)

"Firstly, it is the human's desire to eat the delicious things, and secondly in terms of logic, the healthy eating requires special expenses, for example, if you start with diet, it must be related to the presence of fruits and chicken chest, since sometimes the human being faces conditions which make him eating anything." (female, 30, housewife, lactating)

A couple of participants talked about family members not finding healthy eating "delicious".

"My husband doesn't like healthy eating because it's not delicious." (female, 29, accountant, child 2-5 years old)

- **Picky eaters/ taste preferences**

Some of the mothers mentioned picky eating as a barrier to healthy diets for their children, or why their children did not like certain foods. They also said their children did not eat enough because they refused the foods offered them. Having a picky eater for a child could be very frustrating for the mothers.

"My son is annoying at food, he eats very little amount of food, on the contrary, my daughter, she eats well compared to him, but she doesn't accept milk, even though I add vanilla, Choco and Nescafé, but she barely drinks..." (female, 35, housewife, discontinued breastfeeding)

"When I bring milk to them at night, they do not drink it and prefer tea, so I make it for them." (female, health educator, child between 2-5 years old)

"That they don't like drinking milk or eating eggs which is important for the body." (female, 30, housewife)

- **Effort**

A couple of the participants talked about the extra effort it takes to cook healthy meals took. This was regarded as more difficult if you worked or had other children to look after.

"I like them but do not always eat them, and because of the nature of my work, mallow, for example, requires effort and fish as well, so it is easier for me to make the usual dishes and I feel that they benefit me and my children." (female, 30, nurse, exclusive breastfeeding)

- **Availability**

A few of the participants felt a lack of access to healthy foods was a barrier to their families eating healthy. By 'healthy' they sometimes meant 'pesticide-free'. They said healthy foods were sometimes not available where they lived. Most participants however did not mention lack of access to healthy foods as a barrier to eating healthy.

"It not available either daily or yearly, like some vegetables and fruits are available all the time like cucumber and mlukhi." (female, 37, housewife, pregnant)

"It's hard in Gaza, as we don't trust the food we're eating because we're not the ones who planted it, as pesticides are harmful and for healthy food consumers, they have to own a land plant their food, supervise what goes into it and avoid too much pesticides that are carcinogenic. Distrust in products as ministry of health doesn't supervise agricultural products lately which has caused food poisoning also Rabbitfish poisoning." (female, 26, housewife, pregnant)

- **Forbidden fruit**

A couple of the participants, then discussing why children ate "chips", said they thought children liked such foods as they were "forbidden fruit". They believed that, if the parents do not allow their children to have these foods, the children then want them even more.

"Now, in our society, I feel it is difficult. Most people or children like unhealthy things, i.e. Forbidden is Desirable. For example, I tell the child, "Don't buy chips." When he first enters the supermarket, he buys chips. This is not forbidden but is not useful to the child. This is bad for children. If the mother could prevent this when he is child, she can prevent him doing this when he grows up. For me, when my children first bought the chips, I opened the packet and threw it, then the child became afraid to buy it, but I can designate a day every two weeks for them to buy it. But I tell him that this is not good for you, but I will buy it because you like it." (female, 30, nurse, exclusive breastfeeding)

"I try to give them something healthy and useful, but children tend to like the forbidden." (female, health educator, child between 2-5 years old)

Often the older children had the ability to buy their own food as they were given money to go to school with. Then they would make their own choices on what to buy.

"For me, it is better for to eat between meals because I am breastfeeding and I need to increase calories in order not to suffer from any problem, but for my children, I prefer they eat snacks for they are useful for them and their health." (female, 30, nurse, exclusive breastfeeding)

- **No barriers**

A few of the participants felt as if there were no reasons why they could not eat a healthy diet and appeared to be slightly perplexed by the question.

"Nothing prevents me to eat a healthy diet." (female, 39, housewife, lactating)

Interviewer: "Do you find any barriers to get or eat healthy food?"

Participant: No." (female, 31, English Instructor)

Specific barriers to eating high iron foods

Specifically focusing on high iron foods, the economic situation was given sometimes as the reason why this was sometimes difficult. However, most frequently the reason given was children's taste preferences.

"The bad economic situation and the unwillingness of children to eat this food." (female, 33, housewife)

"I know spinach is rich in iron, so I made them eat it after a lot of confrontation, but their appetite is not so good." (female, 30, housewife)

"Children's habit of refusing to eat spinach, fish, and legumes and the child himself does not help me to feed him." (female, 37, housewife, pregnant)

One mother explained that they force their child to eat due to fears around their children becoming anaemic: *"Their refusal to eat, I always force them, they always want to eat small quantities, some of my children and not all of them, don't want to eat a lot, I force them to eat so they don't need anything." (female, 23, housewife, child 6-24 months old)*

There also appeared to be less knowledge around certain calcium products affecting the absorption of iron, although a few of the participants still talked about this issue.

"Iron interacted with other elements like calcium in milk, sometimes my children do not accept iron-containing foods, so I had to deprive them of

some things so they would respond to me.” (female, 29, account, child 2-5 years old)

During pregnancy, the main barrier to eating high iron foods was feeling nauseous.

“I am pregnant at 36 weeks and in my last month, God willing. The beginning of pregnancy was very difficult in terms of cravings, lack of eating, frequent vomiting, stomach pain and wasting all time. And then I started to feel better in the fourth month. I was not eating at all but after I started the sixth month, I began to eat. Thank God, now everything is fine. (female, 28, midwife, pregnant)

Motivators to healthy eating

- **Beauty**

Enhanced appearance was mentioned by a few of the participants as a possible incentive to healthy eating.

“Because women must maintain their beauty and femininity through healthy eating.” (female, 26, housewife, pregnant)

As one participant explained, an enhanced appearance motivated her daughter to also eat healthy foods: *“I encourage my daughter to eat the food that she dislikes by telling her the advantages of this food. Like, once I bought watercress and told her that it helps in strengthening the hairs and she started eating it.” (female, 30, housewife, pregnant)*

- **Maintaining a healthy weight for adults**

Maintaining a healthy weight was a motivator to eat healthily for a few participants, but rarely linked to specific high iron foods; instead it was mainly focused on reducing unhealthy snack food consumption.

“I’ve got to stop eating white sugar and white bread, I must decrease chips consumption. For me, healthy food is related to weight, and we don’t need to lose weight at the moment, plus, healthy eating tastes bad.” (female, 30, lab technician)

One mother explained how she had been told that breastfeeding helped mothers regain their figure after childbirth. However, she believed that this information

was untrue based on her own experiences: *"It's a false myth that a lactating mother does not gain weight during breastfeeding, the child takes his needs and the rest stays in the mother's body."* (female, 28, housewife, lactating)

- **Growing for children**

Ensuing that your child was growing and was healthy was a motivator for many women. It was acknowledged that consuming a healthy diet supported growth.

"The body is like the plant you grow. It needs to grow up and it needs to strengthen it with nutrition. Like food that contains energy, it is the same as the body, which needs to nourish it, in order to do its vital functions such as respiration and digestion operations and disposition operation. and all these operations require healthy food that enables the body to do all these operations." (female, 26, teacher, pregnant)

- **Linking educational attainment to a healthy diet**

When asked what would help their children achieve their dreams of them going well at school and going to university, healthy eating was not explicitly mentioned by the participants. Instead lack of money and a poor environment were mentioned.

"The bad economic situation, if he will be exposed to violence outside home like, in school." (female, 29, accountant, child 2-5 year old)

However, some of the mothers (unprompted) did link healthy eating with a healthy mind and educational attainment.

"Certainly, because one of its complications is affecting the children's educational achievements. If the child is suffering from anaemia, he cannot concentrate and suffers from distraction of attention in school and therefore, this will lead to a decline in educational achievement and consequently affects my psychological status and my child's as well. Therefore, the child should have analysis to make sure that he does not have anaemia." (female, 30, nurse, exclusive breastfeeding)

"I read a lot of the topics on Facebook about health problems that children are facing because of malnutrition; there are foods that increase child's intelligence level, and foods that are good for his health as well." (female, 29, accountant, child 2-5 years old)

"Sure, in the morning, I give my child milk and thyme sandwich, this help

her in intelligence develop and help to concentrate at school.” (female, 32, housewife, pregnant)

Specific motivators to eating high iron foods

- **Reducing the risk of anaemia**

The main benefits of consuming high iron foods focused on reducing the risk of anaemia and preventing symptoms such as dizziness and tiredness, as well as supporting the growth of babies and children.

“The benefit from feeding the children is to help body and brain growth and give him iron that important to prevent anaemia.” (female, 32, housewife, pregnant)

“Because the body remains healthy with the intake of proper food. Anaemia affects the growth of the body and because if I have anaemia, I will have apathy and affect the whole body.” (female, 28, pregnant)

- **Regular blood tests acting as potential catalysts for change**

The mothers and children often had blood tests to check their iron-levels. This meant that they had a good understanding of anaemia and were informed by healthcare professionals how it could be avoided.

“Yes, I make blood test regularly for me and my son, and that’s to avoid any health problems. I’ve had a test for my son for about four months.” (female, 29, accountant, child 2-5 years old)

“Now my little son is in good health, thank God. He was fine but suddenly fell sick, I went to the hospital, and after a blood test we found that his blood is 8, I was surprised because this is a problem for a child at the age of 8 months, when I thought my son is healthy and the strength of his blood is 8. When I checked myself, I found that I was feeding him food with no iron without my attention, but now I’m trying to get iron into everything that my son is eating.” (female, 28, housewife, children 2-5 years old)

“An NGO which I once went with my small daughter. They came to our neighbourhood and examined the children and I had a girl whose blood is 7. they sent us to an NGO where they said she had anaemia and needed iron and needed a biscuit containing iron and said that this iron containing biscuits should feed your child from it until her blood rise a little.” (female, 23, housewife, child 6-24 months old)

- **Foetal development**

Whilst pregnant, there was a belief that eating high iron foods was needed for healthy foetal development. This was important to all mothers who wanted to deliver a healthy child.

“Because my children are growing and I’m pregnant and the foetus feeds on me and I need to compensate. If I have a shortage of iron, I will be tired and suffer from lethargy, headaches and problems suffered by anaemia patients.” (female, 28, midwife, pregnant)

“I care more about myself and I eat healthy food and adhere to the advice of the doctor who I follow.” (female, 28, midwife, pregnant)

“I was scared I was going to lose my baby. I was suffering from anaemia; my blood was at 7 at the caesarean section so I needed blood units.” (female, 24, lawyer, mixed feeding)

Pregnancy was also a time when mothers often became more conscious about their diets, making it a good time to encourage positive eating habits. As one participant explained:

Interviewer: “Have you ever looked for information regarding a healthy diet? Why did you look for it?”

Interviewee: No, because I was not interested, but when I was pregnant, I searched on YouTube to find out the supplements needed for the pregnant women and I searched on Google as well.” (female, 19, housewife, lactating)

- **Energetic and academically focused child**

As discussed previously, having a child who does well academically was very important to the participants. Therefore, a motivator to children eating high iron foods was in relation to their ability to do well at school, and not “be lazy”.

“If the child gets anaemia, he is lazy and gets a headache, poor appetite, loses energy.” (female, 28, midwife, pregnant)

Specific barriers for breastfeeding

- **Returning to work**

Returning to work was the main barrier discussed. This was often mentioned first by both the mothers who worked, and the housewives. Having to return to work whilst still breastfeeding could result in painful breasts, as well as reducing the

time available for breastfeeding.

"In the morning, when I go out to my work, it is the last time I breastfeed my child, and when my breast gets stiff, I miss my child. With lactation, there is nothing that I do not like, on the contrary, I like to breastfeed my child." (female, 30, nurse, exclusive breastfeeding)

"The child is weaning himself and the mother is employee" (female, 32, housewife, pregnant)

- **Child refusing the breast**

A few of the participants talked about their child not wanting to breastfeed once they start weaning.

"It is possible that their children refuse to breastfeed, they are resorting to artificial milk and this is enough to make the child wean from the mother's breast." (female, 23, housewife, child 6-24 months old)

"I chose not to breastfeed my child because he was torturing me, because after finishing breastfeeding, he used to cry, so I would breastfeed him again, but he used to reject it, so I had to give him formula milk." (female, 19, housewife, lactating)

- **Having other children**

A few of the participants explained that it was difficult for mothers to keep breastfeeding until two years if they have other children to look after. They felt as if they did not have the time to "sit in the house".

"To sit in the house, that is to be a housewife, and not to have many children, I mean, she has two children and the third can breastfeed until the age of two years. If she has many children, I think she will breastfeed him until the age of one year." (female, 23, housewife, child 6-24 months old)

- **Tiredness**

Some of the mothers explained how tiring breastfeeding could be, especially the night feeds.

"I get tired of breastfeeding at night, but the child has the right to be breastfed and the more I breastfeed my child, the more benefit it is to the health of the child." (female, 30, nurse, exclusive breastfeeding)

"I do not like breastfeeding as I did it for 2 years for my son and daughter,

*but I will stop when the little one becomes 1 year old.... It just tires me.”
(female, 28, housewife, lactating)*

Specific motivators for breastfeeding

Several motivators were identified.

- **Wanting a healthy child**

Mothers talked about the health benefits of breastfeeding for their child. They wanted a child that is not sick often and believed that breastfeeding helped a child’s immunity.

“Immune system gets strong and the baby becomes active opposite to the ones who take artificial milk and get sick every week.” (female, 28, housewife, lactating)

- **Increased child IQ**

Linked to their academic ambitions for their children, breastfeeding was regarded as having a positive effect on IQ levels also by some of the mothers.

“Until the age of two years because they say that there is acid that is excreted in breast milk after the year and a half of the child’s age and which increases his IQ.” (female, 30, nurse, exclusive breastfeeding)

- **Bonding**

Breastfeeding was regarded a way to bond with a child. Mothers enjoyed the closeness of breastfeeding.

“When I return from my work, I breastfeed my child immediately, I like the closeness between me and my child.” (female, 30, nurse, exclusive breastfeeding)

- **Money saving**

A couple of the participants talked about the financial benefits of breastfeeding and the cost of formula milk.

“We were buying him formula milk (because he doesn’t get full of her breastmilk as advised by her sister and her sister in law) and now we cannot do so as my husband has many debts. Thus, I searched for the

right food for his age and did not find a solution, as feeding must start at the age of six months.” (female, 19, housewife, lactating)

“Breastfeeding has many benefits for the baby. They are better than formula milk and save money. Breastfeeding is easier especially when go out.” (female, 19, housewife, lactating)

Hopes and ambitions for the future

Participants were asked about the aspirations and dreams for themselves and their children. For themselves, most of the mothers talked about having their own house, finding a better job or remaining employed in a job they enjoy, or leaving Gaza.

“I hope to live in my own house and see my husband working to be able to go on in life.” (female, 32, housewife, pregnant)

“I work in the private sector, but I hope to work in the government sector, & wish the same for my husband because he is in the private sector as well, thank God there is no shortage in the house. We have our own house but need better jobs.” (female, 28, midwife, pregnant)

“It is possible now that I, their father and my children, would think of immigrating from this country, because of the poor situation of the country and the government is very bad. Especially the officials and I do not mean that all are bad, but the situation is very bad.” (female, 28, housewife, children aged 2-5 years old)

However, all the parents interviewed discussed wanting the best for their children. Most of the participants, unpromoted, said they wanted their children to get a good education and a good job and have success in their lives.

“University degrees, good social and economic environment.” (female, 29, accountant, 2-5 year old child)

“Every mother’s dream is that her son is superior academically and with high morals and tender-hearted, and with a unique personality, and to behave with all people, I would love him to be a diplomat.” (female, 28, midwife, pregnant)

“First, as I have been educated and leaned, I will let her learn and I will establish her life and make her marry someone who I can be confident that her life with him will be secure and stable.” (female, 26, teacher, pregnant)

Some also talked about having peace, security and an improved economic situation, or migrating.

"Good economic situation, stable security situation in the country, living in peace, not war." (female, 30, Lab technician)

"Because we live in a country where the spread of personal bias (wasta), and the government is very bad, and as long as this government remains, my children may migrate, as migration of young people with their competence and education is going on." (female, 28, housewife, children 2-5 years old)

Trusted individuals and key influencers

Participants were asked who they trust in their life. Most said a family member like their mother, husband, or siblings.

"My husband. We complete each other in every way, live together and face everything together under the same roof, thus challenging every situation together, that is why I trust him." (female, 28, housewife, exclusive breastfeeding)

"My brothers and my husband." (female, 35, housewife, discontinued breastfeeding)

"My mother, my husband and I have a lovely friend. My dad helps me with my problems, and thing I need my dad helps me. My parents. I often ask for their point of view, because they are the loveliest in my life." (female, 32, housewife, pregnant)

A couple of participants also mentioned work colleagues.

"[name], the pharmacist at my work, she is my friend. (female, 29, accountant, child 2-5 years old)

"My colleague [name] and my sister." (female, 30, lab technician)

Often people were trusted if they had high educational attainments or if they had relevant life experiences.

"Because they are educated people with previous experiences." (female, 29, accountant, child 2-5 years old)

"There are people whom I consider as an example because of their thinking and their experience in life. Generally, I trust my brothers in

their opinions and their advices because they have wisdom.” (female, 28, housewife, children 2-5 years old)

“I’m kind of stubborn, I listen to opinions of course, my son always criticises me, and I also consult my husband and mother. Because we lived together for a long time, and their experiences in life could benefit me.” (female, 35, housewife, discontinued breastfeeding)

Similarities and differences between Gaza and West Bank

The barriers in West Bank around eating healthy were always linked to the poor financial situation, and the lack of affordability of healthy and nutritious foods. This was common in Gaza as well, as the participants assumed that healthy food is expensive and unaffordable. As in Gaza, the participants in West Bank did not find it difficult to eat healthy, they think that eating healthy is a personal choice, a person can decide whether to eat healthy or not. There might be difficulties in eating healthy as their children do not accept the healthy food such as lentils or eggs, and they only want fried potatoes. Unlike Gaza, temptation of junk food was not an issue in West Bank, they are not tempted by fast food or buying food from restaurants, as it is not affordable for them and therefore it was not even mentioned. The unhealthy food for them is drinking tea (with sugar) and eating fried vegetables. The motivators of eating iron rich foods are that they care about their children’s health, and even the unborn fetus’s health, and that their children will be active and grow up healthy. None of them felt that iron rich foods are important for their own health, their concern was only their children and producing enough milk for their infants.

The only barrier that was mentioned for breastfeeding is that the milk is not enough to feed their child, or the mother has a medical situation that means she cannot breastfeed. They were all housewives and they did not go out for work, so returning to work was not an issue as in Gaza. None of them were concerned by being tired or wanted to relax; they all wanted to breastfeed as they believe that the mother’s breastmilk is the best choice for their children. Specific motivators for breastfeeding are that breastmilk is the best for their children and to bond with them. None of them mentioned the money saving behind breastfeeding or the benefits of breastfeeding for the mother, all what they cared about is their infants.

Like in Gaza most of the participants in West Bank are ambitious to have their own houses and move to a better place. They all also want the best for their children regarding a better life, education, and financial status.

Most of the participants trust their husbands in general, however, in regard of their and their children’s health and nutrition, they trust their mothers and mothers-in-law the most. They might ask for the doctor’s advice, but only occasionally.

3.2.5. Trusted channels and sources of information

Health information and communication

- **Internet**

Participants were asked where they get information about health, including nutrition. Most said they have searched for or read about health information online, through a Google search, Wikipedia, or on social media sites like Facebook.

"Usually through Internet, Wikipedia and the doctor." (female, 26, housewife, did not breastfeed)

"From the Internet, I follow a page on Facebook, called Kinz Maternity. This is a page for mother and daughter, since she was pregnant to explain to mother what to eat, what to feed her child, when to feed him, what to feed him for breakfast, after breakfast and what are the activities that you teach your child." (female, 22, housewife, lactating)

"From Google, I write anything and what I find during the search I read, but not everything is true except the information that I find in more than one website and more than one place then I believe it." (female, 30, housewife, lactating)

"I ask my mother and people who are older, but Facebook makes access easy as well as YouTube as it is very popular." (female, 28, housewife, exclusive breastfeeding)

"On social media, on TV, which means that a person benefits from it." (female, 28, housewife, children 2-5 years old)

Many participants said they have received health information from their doctor, hospital, or clinic, especially the UNRWA clinic.

"Yes, they give us courses and sessions in UNRWA when we go, they give us a booklet and they tell us that it is necessary for children to have a healthy food and they tell us also about infants." (female, 39, housewife, lactating)

"While I was pregnant, I used to visit UN clinics who used to advise us to drink lots of water, eat vegetables and avoid rice, macaroni or bread. I followed their advice." (female, 28, housewife, exclusive breastfeeding)

"Sometimes we learn from the Internet and sometimes from an NGO. We take very valuable information to apply to our children." (female, 31, English Instructor)

Some participants said they talk to a family member, such as their mother, for advice on healthy eating.

"For example, my mom, I ask and consult her about my children. Because she is my mother, she is old and understand and she has a good experience." (female, 39, housewife, lactating)

"I don't but when I need advice, I ask my mother-in law as she is experienced and also my friends." (female, 30, housewife)

"On the internet and I asked the doctor in the UN clinic. Also, my mother in law because she has a long live experience." (female, 32, housewife, pregnant)

A few of the participants said they learned about nutrition in school or university.

"Also, we are educated and so we know, as we have finished school and university, we know what is useful and what is harmful." (female, 39, housewife, lactating)

Messaging recommendations

- **Best source of information**

Most participants said they would prefer to learn about nutrition from a health worker or nutritionist. They said they would trust this person since they are educated in the topic area.

"Possibly nutritionist, because he studied about everything useful, for example, know where vitamins exist." (female, 22, housewife, lactating)

"All the centres who work in this sector, health staff as they are well educated in this field." (female, 28, housewife, exclusive breastfeeding)

"Health worker (nutritionist) because this is his field, he is specialized in it and has got the knowledge and experience to convey information to people. Currently, mothers take information from Google, but the educated person remains better." (female, 31, English Instructor)

"The doctor who studied nutrition, anyone who studied nutrition, anyone who specialises in health can make advertisement." (female, 23, housewife, child 6-24 months old)

A few participants also mentioned they would like to learn about nutrition from another mother who has gone through what they are going through, or someone who is has already made a change to eat healthier.

"Maybe, another mother who had a child might has a good knowledge about good health that can share with others." (female, 22, housewife, lactating)

"A healthy person, for example, I don't eat a healthy food so that how I tell people about it, they said that why she doesn't advise herself, so that they will not take information from me with confidence and faith unless they feel that I talk about it from my experience." (female, 30, housewife, lactating)

The Internet was accessed through mobile phones, as opposed to laptops, tablets, etc. Housewives often talked about, in their spare time, enjoying browsing on the Internet, playing games, and using social media. For some, this made them feel less isolated and gave them 'me' time.

"I sit on my mobile, I sit alone on my mobile and I browse Facebook and then I play a game on my phone, just like my daughters....Because I rest at this time, when I sit and relax with myself this is also a good thing." (female, 23, housewife, child 6-24 months old)

Mobile phones also meant that they could be in touch with the outside world, even if they could not afford to visit other people. As one mother explained: *"I wish to go out with my kids for a picnic, cover their needs, change my routine as I stay in my house all the time from morning till evening, I do not visit anyone as I cannot buy gifts and those people too will be forced to host you and burden themselves to please you." (female, 28, housewife, lactating)*

- **Programme recommendations**

When asked how they would design a programme to promote healthy eating for mothers and children, many participants said they would organise seminars, home visits, or brochures to distribute in person and online. Many mentioned Facebook as a good online means of spreading awareness because *"everyone uses Facebook."*

"Field survey, nutrition workers make home visits to the community, because mothers are always at home, so I think it's the easiest way to

get to them. It's also possible by radio, seminars. I don't like brochures."
(female, 33, housewife)

"I give it to people online by creating a page, or through awareness campaigns or sessions. For example, I specify a healthy meeting day, invite them and distribute the brochures, and we talk about it and bring realistic examples of life and so on." (female, 30, housewife, lactating)

"Awareness brochures about healthy food and the benefits of eating diverse food, and we can publish these through Facebook communities."
(female, 33, housewife)

Similarities and differences between Gaza and West Bank

Unlike in Gaza, in the West Bank the participants do not have mobiles or access to the Internet. Therefore, they do not attain information or knowledge on health and nutrition from the Internet. They trust the people with educational background such as a doctor, nutritionist, or nurse at the health clinics in their area. Most of them do not mingle or get in touch with their neighbours or other family members. A few of them like to go out and feel relieved to talk to their neighbours and share information. They thought that the best practice for sharing information and changing behaviours is by having sessions presented by trusted people such as doctors or nurses (professionals), or through peer support (mother-to-mother).

A couple of participants said they would recommend doctors make visits to schools and educate children there. One mother said the school could invite mothers to the sessions as well, and teachers can play a role too. Her reasoning was children may listen more during school and may even pay attention to what their teacher is telling them more than what their mother tells them to do: "Doctors and schools as children pay attention in schools. As far as I am concerned, doctors can invite mothers and teach us. They can play an important role, because people usually listen to doctors. Also, teachers in school can help too, as it plays as a *second mother and children may listen to her more than me.*" (female, 30, housewife)

3.3. Qualitative interview findings: Key Informants

Six key informants were interviewed: two women and four men. All of them were professionals working in Gaza. All the key informants interviewed expressed their interest in the study. It was also clear from the interviews that supporting and encouraging families to become healthier, thus reducing the prevalence of illnesses

and improving outcomes, was regarded as important for all of those interviewed, and a top priority (or one of the top priorities) of their work.

3.3.1. Focus on consumption of unhealthy foods

Many of the key informants talked about the growing issues with obesity and believed that efforts should focus not solely on malnutrition, but also on obesity (and related conditions, such as hypertension, Diabetes Type II, etc.).

“Additionally, we care about adolescent because we have noticed that there is malnutrition including obesity caused by lifestyle... I mentioned adolescences because a study was conducted in 2016-2017 regarding the nutritional and the psychological component of adolescence in Gaza, in fact, we discover that obesity (which also consider as malnutrition disease and faulty feeding) and adversely practice lifestyle had been significantly contributing to the obesity and overweight especially among adolescences.” (Executive Director of NGO)

“Obesity is a nutritional disease not just wasting, we find a large number of children under the age of 5 years are obese and from good economic status families they are ashamed to go to local NGOs and are not targeted through projects in addition to that people do not know that overweight it is also a malnutrition problem.” (Doctor)

With this in mind, many of the key informants talked about the need to focus more on encouraging people to change their consumption behaviours relating to unhealthy snacks and sugar, as opposed to simply ‘healthy eating’.

“An example of bad habits is eating Maqluba (rice and meat) and adding a lot of yogurts, sometimes they drink a huge amount of carbonated drinks or tea after the meal immediately, smoking after the meal or eating a lot of sweets after the meal immediately.” (Executive Director of NGO)

“Also, there are bad eating habits that have new present such as frequent eating chips.” (Doctor)

3.3.2. Barriers to breastfeeding and healthy eating

Key informants were sometimes rather complexed when asked about the barriers to breastfeeding; many felt that there should not be any. As one key informant explained: *“Poverty and problems do not prevent her from feeding her*

child. Breastfeeding is the right of the child from his mother which continues for thirty months.” (Imam)

However, although talking about the progress made through the UNICEF baby friendly initiative, one informant still felt that there was a problem with the Intensive Care Units (ICU) in hospitals. He felt that, if a child ended up in an ICU, then they did not have the facilities for mothers to breastfeed.

“Breastfeeding is the best food from the mother since the date of birth of the child until the age of 6 months taking in the account addition of Vit A and D as well as iron as preventive doses from age of 2 and 4 months but for children with very low birth weight as a result of many factors including short gestational age or admitted to the paediatric ICU, in fact, they constitute a challenge because of the hospitals are not well prepared enough to adapt the mother for 24 hours, so that they are available all the time to initiate in needed breastfeeding or even to continue breastfeeding for the children. This is one of the areas that I consider a challenge until now.” (Executive Director of NGO)

Barriers around healthy eating were also discussed. Whilst the key informants acknowledged that poverty and low financial means were factors, they highlighted other prominent factors, such as:

- Existing bad habits
- Cultural traditions
- Taste preferences

“Maybe two issues affect healthy eating, first, the most important to me is the taboos, habits and cultural impact. The second issue is poverty because people are unable to afford all the necessary foods. But poverty is the second reason because there are many cheap and nutritious sources of food in our area. I think it is mainly related to cultural inherited trends and traits.” (Executive Director of NGO)

“All the people in Gaza Strip know that drinking tea after eating is a bad habit, but they still practice it.” (Doctor)

“I add to that sugars and sweets and things that you know that what we grew up [doing].” (Teacher and Iman)

One of the key informants also mentioned availability as a barrier: *“Barriers may be financial factors, but the price of foods, which contain iron, is very simple, such as spinach that are available, but also a problem.” (Teacher and Imam)*

3.3.3. Changes needed

The key informants suggested several changes which they felt would encourage breastfeeding continuation and healthy eating, including:

- ***The need to move away from traditional educational approaches***

Whilst some of the key informants talked about using the traditional methods to communicate information to residents around breastfeeding and healthy eating (such as leaflets, seminars, etc.), they expressed the need to move beyond the traditional educational approaches.

“This issue is very important here, but to be applied it is difficult because not all people can understand it. I can conduct education session about the adverse effects of fast food, but unfortunately, I will find people bring with them fast food. And people still drink tea with sugar till now, even they know it is harmful.” (Community Leader)

The need to move beyond these related to the belief that, despite people knowing what they should eat/do, they chose not to do it.

- ***Educating and engaging with fathers***

Most key informants believed that mothers were the primary audience for most activities, however they believed that fathers also should be engaged with, as they could have a positive or negative influence on behaviours.

“Because the husband is the main conservative/control and if she wants her to wean the baby, he can prevent her or if she wants to give him supplementary food he can refuse. So, this can be motivating.” (Community Leader)

“In addition, the husband must involve in encouraging the mother to breastfeed and according to our culture this happens through the husband’s work and meeting the demands of the nursing mother.” (Doctor)

"The husband can be a positive or a negative factor. For example, when a father goes home, he may carry two cartons of chips for children for he has no awareness that there is a problem in this act, and that this thing may cause harm to his child in the coming future- of course there is no father who wants to hurt his children, but he is not aware of it." (Teacher and Iman)

A couple of the key informants went further and stressed the need for a whole-family approach.

"When building a family, we ought to build a whole one. A healthy family, I mean. Like, the child, as I said, should have, you know, at school." (female, community leader)

"Based on group counselling sessions when information is generalized and targeted population is in place by targeting mothers, grandmothers and young girls (adolescent), also fathers include in community-based counselling sessions to believe in the importance of breastfeeding." (Executive Director of NGO)

Linked to this point, several of the key informants advocated for more programmes to be run in schools, ensuring that young children learn positive habits.

"Especially because people these days are consuming too much fast food and take-away, so we should raise awareness then they can take care of their children health." (Community Leader)

"Not necessarily that who communicate are from healthy workers, it is a responsibility of all, it should be in the hospitals and NGOs by the doctors, nurses and health educators, also, in the schools, in the kindergartens, in the media, in the university." (Executive Director of NGO)

One of the key informants thought schools should go beyond awareness raising and provide products to support good nutrition. He gave an example from the United Kingdom: *"The aim of the awareness is to change behaviour and this change needs to be joint efforts, which is the responsibility of the government mainly and therefore the absence of the state is a fundamental problem for us, for example what the British government did in the 1930s about the problem of rickets suffered by children so it distributed milk in the morning On a daily basis for children which called milk man phenomena." (Doctor)*

However, he went on to explain that some of the products offered to date in Gaza were unpalatable: *“One of the initiatives was iron-fortified biscuits, the biscuit taste was unacceptable which leads to the difficulty of the commitment of children to take it.” (Doctor)*

- **More specialised expertise**

One of the key informants expressed concern that there were no nutritionists at the local hospital. They believed this led to a lack of education and advice being given to mothers in relation to breastfeeding and healthy eating.

“Unfortunately, in Gaza, there is no hospital-based dietitian or clinical nutrition expert.” (Executive Director of NGO)

It also could affect the continuation of information giving, which was also highlighted as very important by a couple of the informants.

“Mothers will be addressed in prenatal, natal and post-natal phases as well as the real change in the area of contact, how to address anyone, the way to create the continuous chain of contact with these groups of women to send the message correctly, effectively and meaningfully....” (Executive Director of NGO)

- **Advocacy**

A couple of the key informants talked about the need for greater advocacy work. They felt that talking a ‘top-down’ as well as a ‘bottom-up’ approach was needed to tackle issues around malnutrition and obesity.

“In addition, we must concert efforts through the advocacy work to send warnings to the decision makers to prevent the presence of these foods in our markets.” (Doctor)

They also called for clearer guidelines on how to do health education and promotion. There was a fear that a lot of work was happening, but it was not done always in the same way. This could result in inconsistent messages being given to residents.

“Everyone works with health education, but everyone works in their own way and that’s wrong where everyone should follow one institution (the Ministry of Health) that issues protocols and policies.” (Doctor)

3.3.4. Communication channels

Several channels were suggested for health promotional activities.

- **Social media**

A couple of the key informants mentioned using social media to reach people. They explained how social media usage was high in Gaza.

“It depends on the targeted area, it could be through advertisement about these programmes but in the clinics, it is accessed every day by women. while courses and seminars can be done through social media.”
(Community Leader)

“In recent times, people use WhatsApp application on mobiles which can be used to raise awareness through sending messages, and it is also possible for officials in the Ministry of Health to send messages via WhatsApp to reach the largest category of the Gaza Strip.” (Iman)

One of the key informants talked about a group that he had recently joined and how surprised he was to see so many people on the group, which in turn, created a sense of community and importance to the issue.

“I could establish a page for health nutrition and breastfeeding and this page is funded and promoted heavily and the people who are experienced and not a random system and publishing awareness through it will have a big impact. For example, I received friendship acceptance from a group called ‘Sugar Challenge’. I was surprised by the number of people in this group, which was increasing in thousands. The admin and the other concerned persons of this page warn people of the danger of eating excessive sugars such as bread and there was a great response by people to this group.” (Teacher and Iman)

- **Healthcare professionals**

Healthcare professionals were seen as important channels, as people listen to and respected them. However, some of the key informants felt that it was very important that consistent messages were given, and they were not just given as a one off, instead they should be given consistently.

“There should be a doctor talk about the adverse effect of fast food, and importance of healthy food, and how we can guide our children to

avoid bad things and eat healthy things. These programmes should be continuous. Also, how we can make healthy breakfast instead of unhealthy and how it can be useful to build the child health.” (Community Leader)

- **Home visits and outreach**

A few of the key informants felt that, for the most vulnerable communities, health promoters should do more outreach work. They felt that it was often the most educated and literate who attend sessions, resulting in the most vulnerable being left behind.

[who attends the sessions] “The literate mother who felt that she has a problem with her child and suffered from breastfeeding or nutrition problems with her son or daughter, you can find her that she concerns with these topics, she will try to solve her problem with her child through these programmes.” (Community Leader)

“Regarding the communication channels for reaching local residents, in each area, they should be communicating with people by different means through face to face by the staff in each place who contact the community....” (Executive Director of NGO)

- **Through religious leaders**

A couple of the key informants believed that mosques were a good place to reach people and welcomed healthcare professionals to come along a talk to people there.

“But I found some programs in other countries that I liked, so awareness lesson could be conducting in the mosque and the Sheikh, specialist in nutrition, or doctor in these issues, so when they sit together and talk about such topics, then people can understand these issues.” (Teacher and Iman)

“I participated in medical campaigns by inviting doctors to the mosque to conduct regular and simple tests for worshipers, related to diseases of the nose and throat chest and blood donation campaigns.” (Iman)

One key informant highlighted that an Iman may not have the expertise to talk to people about nutrition correctly, and therefore would need support from a nutritionist.

"Sometimes the circumstances of the society, through which we go, have a role.....This issue may require workshops before the Preacher comes up to the podium and talks about this topic. This topic needs a workshop involving, for example, nutritional scientists, gathering Friday Preachers and gathering certain prominent people for conducting the coordination for this message." (Teacher and Iman)



Ali Jadallah/ WFP

4. Conclusions & Recommendations

This piece of research will inform the development of clear messages and a behaviour change strategy which will motivate target audiences to change their behaviour.

4.1. Key insights

Through the research, several key insights were identified, including:

- **Good knowledge around healthy eating and the different vitamins and minerals.** There was good awareness around what should and should not be eaten, and what vitamins and minerals should be consumed in Gaza, although this was less well known in the West Bank. There was also excellent knowledge around anaemia in Gaza, with most of the participants appearing to have had tests to check their iron-levels in the past. Despite this knowledge, people did not always choose to eat healthily.
- **Complacency.** Overall mothers appeared happy with their current diet and felt that they were doing the best they could on their current income. There seemed no sense of urgency or even the need to change much, except for adding more meat into their diets. Most participants said if they had more

money, they would buy more meat.

- **Good knowledge around the health benefits of breastfeeding.** There was good knowledge around why they should breastfeed (and for how long), and the benefits to the children. However, the benefits for the mother in relation to breastfeeding, were less well known.
- **Lack of concern around unhealthy snacking habits.** Snacking between meals was a frequent occurrence, however what people snacked on was often unhealthy items such as sweet biscuits and cake. However, mothers were unconcerned about the consumption of unhealthy snacks.
- **Decision making process.** Although participants had a good knowledge of what foods were healthy, and knew why they should consume such foods, there was no real sense that the participants selected food items based on 'health' or 'nutrition' considerations. Rather, they considered taste, habit / tradition, availability and affordability.
- **Ambition-focused.** Mothers aspire for their children to do well at school and go on to university and then find a good, well-paid, and respectable job. However, they did not always link what a child ate to academic attainment. Whilst they would talk about the importance of supporting good brain development whilst the child was in the womb and whilst they were breastfeeding, there seemed to be less of an association between healthy eating and brain development once the child was of weaning age or older.
- **Knowledge is not enough.** Mothers had, on the whole, good knowledge around anaemia and expressed concerned about it. However, this alone did not always motivate behaviour change.
- **Fears of the safety of foods.** Safety fears appeared to be at the forefront of people's minds in Gaza; they often worried about "*pesticides*" and "*chemicals*", as opposed to how much fat, sugar, or salt they were consuming. This was less of a concern for participants in the West Bank.
- **Social media usage.** In Gaza, nearly all of the participants talked about accessing the Internet through their mobile phones. They enjoyed going on social media sites, and this activity, for some was the way they relaxed and for others, it broke down social isolation. However, in the West bank, mobile usage was far more limited, and therefore their Internet usage was also greatly reduced.

4.2. Recommendations and next steps

To impact on all six behaviours which were explored through this research, any behaviour change Action Plan needs to draw on different levers of change and a range of activities to create a community environment that makes healthy choices easier, to encourage more community and whole-family involvement in health, and to strengthen the policies that will encourage healthier behaviours and discourage unhealthy ones. These activities all need to be supported by a long-running campaign, based on community members' own thoughts about how to encourage, motivate and support people to make the changes and choices that are needed in their own way and on their own terms. Alongside these actions in the wider community, there will be work to strengthen the local services that provide advice, information, and support to help people develop the skills they need to successfully maintain healthy behaviours.

In 2020, WFP and UNICEF will be developing a joint Social Behaviour Change Action Plan focused on the six behaviours which were explored through this research. The Action Plan will use different levers⁵⁷ to support and achieve behaviour change. These include:

1. Support. Developing or re-designing products or services to *support* the desired behaviour change.
2. Design. Considering the physical environment (*design*) and if it can be changed in any way to support a change in behaviour.
3. Inform. Meeting the *information and educational* needs of the target audience in relation to the desired behaviour change.
4. Control. Using policy, pricing and/or regulation mechanisms to either incentivise the desired behaviour, or disincentivise the negative behaviour.

These levers will be used at strategy/policy, operational/community levels. The use of behavioural economic 'nudges' will also be explored and considered for inclusion in the Action Plan.

Nudges are simple cues in our environment that influence us to behave in a certain way and are based on the theory that we can be unconsciously guided by choice architecture.⁵⁸

Possible examples of interventions, based on the findings from the research, are detailed in Table 7. However, the full Action Plan and intervention mix will be

⁵⁷ Hopwood T & Merritt RK. The Big Pocket Guide. August 2011. Available online: https://www.thensmc.com/sites/default/files/Big_pocket_guide_2011.pdf

⁵⁸ Thaler RH, Sunstein CR. Nudge: improving decisions about health, wealth and happiness. New Haven: Yale University Press, 2008.

developed after the findings have been presented to key stakeholders, and in collaboration between UNICEF and WFP.

Table 7. Examples of possible interventions

Intervention level	Behaviour	Intervention	Behaviour change lever
Strategy/policy	Breastfeeding rates (0-6 months)	Baby Friendly hospitals	Control
		Reinforce and advocate for the adherence of the International Code of Breastmilk Substitutes	
Operational/community	Continuation of breastfeeding until 2 years	One-on-one counselling	Support
	Increasing high iron foods with children	Provide community-level support through development of locally appropriate recipes; cooking demonstrations; meal planning	Inform/educate
		Hold group discussions with mothers-in-law, sisters and aunts to discuss the benefits of eating high iron foods for PLW and how they can support mothers	



Appendix I

Gaza

Interview	Gender	Location	Age	Number of children	Children's age range	If breastfeeding or pregnant	Occupation	Date of interview
IDI/ pregnant	Female	Gaza, Tal Alhawa	26	2	5 years	pregnant	N/A	7.11.2019
IDI/ pregnant	Female	Gaza	26	1	years 1.5	pregnant	Teacher	7.11.2019
Paired/ pregnant	Female	North	28	2	3.5 years	pregnant	Midwife	7.11.2019
	Female	North	28	3	years 4.5 years 2.5 /4 months 6	N/A	N/A	
Paired/ pregnant	Female	Khan Younis	37	4	11/11 years	pregnant	N/A	11.11.2019
	Female	Khan Younis	30	3	years 10/4 7/5 years	N/A	N/A	
IDI/ lactating	Female	Khan Younis	39	3	years 3 months 7 years 7 & 4	Lactating	N/A	8.11.2019
IDI/ lactating	Female	North	22	2	months 4 years 3	Lactating	N/A	16.11.2019

Paired/ lactating	Female	Gaza	28	3	months 9 years 3 & 6	Lactating	N/A	17.11.2019
	Female	Gaza	34	4	years 17 & 15 /14 /10	N/A	N/A	
Paired/ lactating	Female	Gaza	23	2	months 8 years 3	Lactating	N/A	17.11.2019
	Female	Gaza	22	2	years 3 & 1	Pregnant	N/A	
IDI/ mother of 0-6 months	Female	Gaza	26	2	months 8 & 1 weeks 2	Formula milk	N/A	23.11.2019
IDI/ mother of 0-6 months	Female	Gaza	28	2	months 2 years 2	Exclusive BF	N/A	20.11.2019
IDI/ mother of 0-6 months	Female	North	24	1	months 2	Mixed Formula & PF	Lawyer	20.11.2019
Paired/ mother of 0-6 months	Female	Gaza	30	3	Twin 2 months years 7	BF	N/A	20.11.2019
	Female	Gaza	30	4	From 3 months till 8 years	Exclusive BF	Nurse	24.11.2019
Paired/ mother of 0-6 months	Female	Gaza	36	4	From 4 till 11 years	N/A	Health educator	
	Female	North	30	3	months 6 years 10 & 7	Mixed Formula & BF	N/A	13.11.2019
IDI/ mother of 6-24 months	Female	North	33	2	Twin 10 years	N/A	N/A	
	Female	Khan Younis	32	3	and 2 months 1 years 6 & 4	N/A	N/A	17.11.2019
IDI/ mother of 6-24 months	Female	Khan Younis	23	3	and 1.2 years 4 ,5,5	N/A	N/A	17.11.2019

Paired/ mother of 6-24 months	Female	North	31	5	years 6 /9 /10 /11 months 11	Weaning	N/A	17.11.2019
	Female	North	34	4	years 3 & 8 /9 /11	N/A	N/A	
Paired/ mother of 6-24 months	Female	Gaza	27	2	months 23	N/A	Digital marketing	27.11.2019
	Female	North	30	3	years 5 & 8 /10	N/A	Agriculture engineer	
IDI/ mother of 2-5 years	Female	Gaza	30	2	3.5 years 8	N/A	N/A	18.11.2019
	Female	Gaza	31	2	2.5 years 4	N/A	Instructor, doesn't work now	17.11.2019
Paired/ mother of 2-5 years	Female	Gaza	29	1	years 2	N/A	Accountant	25.11.2019
	Female	Gaza	30	2	years 7 & 9	N/A	Lab technician	
Paired/ mother of 2-5 years	Female	Gaza	27	3	years 9 & 3 /2 and 7 months 1	N/A	N/A	19.11.2019
	Female	Gaza	28	4	years 10& 9 /7	N/A	N/A	
Family interview/ mother of 0-6 months/ with sister in law	Female	Gaza	19	1	months 3	Lactating	N/A	23.11.2019
	Female	Gaza	25	2	years 1 & 3	N/A	N/A	
Family interview/ lactating woman/ with her husband	Female	Gaza	38	4	years 14 & 11 /9 /1	Lactating	Project coordinator	24.11.2019

Family interview/ woman discontinued BF/ with mother in law	Female	Gaza	35	2	and 7 months 1 years 5	Weaned	Lab technician/ doesn't work now	24.11.2019
	Female	Gaza	55					

Interview	Gender	Location	Occupation
Professional interview	Female	North	Woman health centre manager
Professional interview	Female	Gaza	Community leader
Professional interview	Male	Gaza	Executive director- Ard El-Insan AEI
Professional interview	Male	North	Executive Director of the Palestine Diabetes Association
Professional interview	Male	Gaza	Imam
Professional interview	Male	Gaza	Teacher and Imam

West Bank

Interview	Gender	Location	Age	Number of children	Children's age range	If breastfeeding or pregnant	Occupation	Date of interview
IDI/ mother of 2-5 years	female	Yatta	35	8	The youngest is 2.5 months and the eldest is 19 years	N/A	N/A	Dec. 2019 23
IDI/ mother of 6-24 months	Female	Yatta	32	6	Youngest 1 year and the eldest 15 years	Breastfeeding	N/A	Dec. 2019 23
Family interview/ woman mixed feeding/ with husband	Female	Yatta	28	6	Youngest is 4 months and the eldest is 10 years	Mixed feeding (breastfeeding (and bottle	N/A	Dec. 2019 26
IDI/ mother of 0-6 months (exclusive BF	Female	Yatta	34	2	months, 2 years 6	Exclusive breastfeeding	N/A	Dec. 2019 23
IDI Pregnant mother	Female	Yatta	32	3	Youngest 1.5 years and eldest 7 years	Pregnant	N/A	Dec. 2019 26
IDI/ Mother of 2-5 years	Female	Yatta	38	6	Youngest 3 years old, and eldest 18 years old	N/A	N/A	Dec. 2019 26



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