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# A Multi-country Study of Early Infant Feeding Decisions

## CHINA REPORT

A UNICEF Commissioned Report  
Conducted by M&C Saatchi World Services



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# GLOSSARY

**ATL** Above-the-Line marketing, communication which involve the use of mass media channels such as television, cinema, radio, print

**BJ** The city of Beijing

**Formula milk Companies** Producers who manufacture and promote Breastmilk Substitutes

**BTL** Below-the-Line marketing, direct methods of communication such as emails, promotions, phone or in-person interaction and events

**Colostrum** Initial form of breastmilk produced immediately after birth, characterised by high nutritional content

**Cross-Promotion** Use of one product to promote another product

**Daigou** Personal shopper who sources formula milk from abroad

**DHA** Docosahexaenoic acid - an omega-3 fatty acid that is in breastmilk

**E-Commerce** Online stores such as JD.com which sell and promote formula milk

**Formula Milk** Modified animal milk- or animal milk substitute-based product, promoted as part of a line of products that includes infant formula, follow-up formula, and/or growing-up milks and may include formula milks for special medical purposes

**Follow-on formula** Modified animal milk- or animal milk substitute-based product promoted as suitable for use as a partial or total replacement for breastmilk in the diet of an infant from six months old

**FGD** Focus Group Discussion, qualitative research method whereby people are gathered in a group to discuss a specific topic

**Growing Up Milk** A fortified milk-based product usually marketed at children aged 24 months and up

**HMO** Human Milk Oligosaccharides, these are different types of sugars that are present naturally in breastmilk (human milk). HMOs contribute towards a healthy gut, reduce the risk of disease and infection, and benefit the development of the infant.

**HP** Health Professionals, included HPs from private and public facilities

**IDI** In-depth Interview, a qualitative research method to gather detailed information

**Infant formula** refers to milk formula products intended for infants during the recommended exclusive breastfeeding phase (typically 0-6 months of age)

**JN** The city of Jinan

**KOC** Key Opinion Consumer, experts in testing and reviewing products on social media

**KOL** Key Opinion Leader, also known as a "influencer", a person who has expert product knowledge and influence in a respective field

**Marketing** Promoting and selling of products and brands, including advertising

**Marketing Exposure Score** A score to calculate the amount of exposure to formula milk marketing<sup>1</sup>

**Marketing Landscape** An analysis of the formula milk market in respect to strategies for promotion of products, trends and competition in a country or other setting

**Maternal Milk products:** Modified animal milk- or milk substitute-based products that share a brand with an infant formula product and are promoted as a nutritional aid for pregnant and/or breastfeeding women

**Social Media** Popular social media platforms in China including Wechat, TikTok, Little Red Book

**Stage 1 Milk** Formula for infants aged 0-6 months

**Stage 2 Milk** Formula for infants aged 6-12 months

**Stage 3 Milk** Formula for children aged 1-2 years

**Stage 4 milk** Formula for children aged 2 years and older

**Toddler milk** Modified animal milk- or animal milk substitute-based product that shares a brand identity with an infant formula product and promoted as suitable for use as a partial or total replacement for breastmilk in the diet of an infant from twelve months old. Toddler milks can vary in age and promotion but are usually Stage 3 milk formula aimed at children aged 1 to 2 years.

**Umbrella Branding** Marketing practice that uses one brand name to sell other related products

**Yuesao** Woman hired to take care of a newborn infant and mother in the month/s after childbirth

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<sup>1</sup> This scoring system was developed for this study. Further details on the marketing exposure score calculation can be found in the Appendices.

# 1

## INTRODUCTION

### 1.1 Purpose of the study

The WHO/UNICEF Global Strategy for Infant and Young Child Feeding states that “as a global public health recommendation, infants should be exclusively breastfed for the first 6 months of life to achieve optimal growth, development and health”.<sup>1</sup> The superiority of breastfeeding compared with breast-milk substitutes (formula milk) is universally accepted. Not breastfeeding is associated with lower intelligence and economic losses globally of about USD \$302 billion annually or 0.49% of world gross national income.<sup>2</sup>

The marketing of formula milk has been shown to negatively affect breastfeeding practices, and the active promotion of formula milk continues to be a substantial global barrier to breastfeeding. Recommended breastfeeding practices can be undermined by promotion of formula milk in various ways including promotion of products as equivalent or superior to breastmilk, or as its replacement.<sup>3</sup>

This report presents findings of a study on infant feeding in China, which will be employed to inform strategies to support informed decision-making around infant feeding. The study drew on 9 data collection methods which mapped the marketing of formula milk across Beijing and Jinan. Exposure to marketing amongst pregnant women, mothers and ‘influencers’ (Health Professionals, Marketing Executives, Yuesaos, Partners, Family and Friends) was investigated. The research sought to document the extent of formula milk marketing, how formula milk marketing messages are perceived by women and influencers, and their effect on knowledge and values.

### 1.2 Summary points

#### MARKETING IS PERVASIVE IN CHINA

Marketing of formula milk is ubiquitous in China, nearly all pregnant women and mothers (**97%**) reported that they had seen or heard an advertisement for formula milk in the past year. Phone diaries collected by 20 women recorded **234** entries in 7 days, of which **130** were explicit adverts. Other entries captured a variety of formula milk marketing included promotions, recommendations of formula milk on WeChat Mom groups, and free samples. The most recalled channel of marketing was TV (**72%** of those exposed to marketing). Findings demonstrated the importance of digital marketing, WeChat was the highest recorded source of marketing in the phone diaries, and **68%** of all survey participants recalled seeing a pop-up advert for formula milk on social media.

Findings demonstrate that legislation to protect and promote breastfeeding in China is weak. The *Implementation Measures for the Maternal and Infant Health Care Law*, and the *Advertising Law* related to advertising and promotion of infant formula, include some provisions regarding the marketing of formula milk. However, the study documented marketing that defies these provisions. Examples of this included marketing that positions products as a replacement for breastmilk, and high acceptance of sponsoring or funds, free samples and sometimes

promoting formula milk, in the name of academic projects and health education by health care institutions and their staff. **A VARIETY OF METHODS ARE USED TO TARGET AND REACH WOMEN AND HEALTH PROFESSIONALS.**

The formula milk market in China is the largest in the world and is extremely competitive. Marketing methods used are diverse and often sophisticated. Traditional methods of marketing are common including advertisements on TV, on billboards, outdoors, and in elevators. Digital methods are a key channel for marketing and have grown rapidly in recent years, especially in light of the COVID-19 pandemic. Interviews with Marketing Executives revealed more focus was placed on digital methods during the pandemic as less people were going outdoors.

Formula milk companies have invested greatly in digital and marketing platforms, and most Marketing Executives spoke of how these are now the primary channels for many brands. Popular platforms for marketing included WeChat, TikTok, Little Red Book, mother and baby apps such as Baby Tree, Mama.cn, and e-commerce stores such as JD.com. Women are targeted on multiple channels to persuade them to buy products. An important source of marketing is influencer marketing, where celebrities or other mothers promote products. Formula milk companies collaborate with influencers, Key Opinion Consumers (KOCs), and Key Opinion Leaders (KOLs) to raise awareness of, and recommend products on digital platforms. WeChat Moms groups are a very popular platform for women, and are seen as a trustworthy source of information for feeding and product recommendations. Formula milk companies often create, or hold a presence in these groups, and several women mentioned that they had been signed up to a Moms club by a company representative.

Interviews with Marketing Executives revealed that the 'most effective' way to reach women is to use a blend of online and offline methods of marketing. A wide range of offline events are employed to engage with women and promote formula milk including roadshows, seminars, and other marketing events such as baby crawling competitions. Free samples of formula milk are still a common source of outreach, and were recorded in and outside of hospitals, at stores, events, and in the post. Promotions for formula milk products including gifts, discounts, and 'one-time only offers' were common, and were popular amongst women. The majority of women (93%) had seen promotions for formula online or in a store. Cross-promotions were also widespread, such as advertisements for multiple products, or the marketing of maternal milk to pregnant women, which was found to be a key channel of outreach by formula milk companies.

Health professionals (HPs) and hospitals are targeted by formula milk companies, and are seen as a key channel of formula milk marketing. Evidence was found of HPs promoting special formulas on-site; Formula milk companies sponsoring medical events, education, and conferences, and holding education seminars for both HPs and for pregnant women; and funding HPs to speak at events or to recommend products online.

## **MARKETING SHAPES DECISION MAKING**

Detailed accounts were provided by Women, influencers, and HPs on women's exposure to, and views of, formula milk marketing. Many discussed how formula milk marketing plays an influential role on women's infant feeding attitudes and practices. A key feature of formula milk marketing included companies positioning their representatives as there to 'consult', support, and provide recommendations and guidance. Women reported that they found marketing information useful to understand the benefits of the formula, and many discussed how they found the marketing appealing and persuasive.

Many advertisements have 'sticky messages' where women were able to recall the marketing messages verbatim. Messages such as 'increases immunity' (82%) and 'improves brain development' (79%) were seen by about 8 out of 10 people who had been exposed to marketing. Products were also positioned as 'close to breastmilk', both on labels, in advertisements, and in consultations with brand representatives. When asked the reasons for their choice of formula, over half of women who feed or are planning to feed formula, reported that they believe it is the 'closest formula to breastmilk' (54%), or because it is 'good for the baby's health' (54%). Marketing often positions science and development at the heart of the product, and many women appeared to be persuaded by the 'science

and research' in formula development. Some spoke of how they were impressed by ingredients which claim to replicate or be superior to breastmilk. Mirroring market findings that Chinese producers are actively competing with international companies, women, influencers and HPs repeated messages from Chinese producers that their product is 'researched and more suitable for Chinese babies', this message was the most spontaneously recalled message of formula milk marketing.

Exposure to marketing was found to be significantly related to positive attitude statements on formula feeding such as 'formula has the same health benefits as breastfeeding', 'helps babies sleep better', and 'is very like breastmilk', suggesting that higher levels of exposure to marketing leads to more positive attitudes on formula milk. Results suggest that adverts for formula milk are more important and more trusted by women who have greater exposure to marketing. Higher levels of exposure to formula milk marketing were significantly related to more positive views on the information formula ads provide, their accuracy, and agreement with the statement 'the ads helped me to make a decision'.

### **MARKETING SUPPORTS A NORM OF 'MOVING ON' TO FORMULA MILK**

Formula milk companies used subtle and overt nudges which play on mothers hopes and anxieties around feeding. Nutrition was often a central focus of marketing, positioning formula as being comparable to breastmilk, or having added benefits compared to breastmilk. Marketing Executives spoke of how formula milk companies aim to position formula alongside breastmilk, so that women prioritise formula and breastmilk. Findings from the market analysis and phone diaries revealed a strong push on the marketing of stage 2, 3 and 4 formulas, with marketing promising that these products impact on growth, development, have added nutrition, and provide superior intellectual and physical development.

Awareness, and reported need for stage 2/3/4 formula was extremely high. Doubt around milk at 6 months normalises the need to 'move on'. Women were asked about their awareness of stage 2, 3 and 4 formula, nearly all women (96%) surveyed were aware of Stage 2 formula and Stage 3 formula (94%). Nearly three quarters of women were aware of Stage 4/Growing Up milk (73%). Of those who were aware of these formulas, the majority reported that there is a need to use them.

### **WOMEN IN JINAN APPEAR MORE AWARE OF AND ENGAGED IN FORMULA MILK MARKETING**

Marketing appeared to be more pervasive in Jinan, and findings suggest that women in Jinan are more open and engaged with marketing, and also had a higher level of exposure to marketing. Women in Jinan were also more likely to see and utilise multi-buy discounts compared to Beijing, 84% of women in Jinan reported seeing multi-buy discounts, and 58% avail of discounts, compared to 74% and 42% of women in Beijing respectively. A segmentation analysis identified a 'Marketing Enthusiast' group who are more engaged with formula milk companies and their marketing, and have high brand awareness and exposure to marketing, this group were more likely to be from Jinan. Meanwhile an 'unengaged' group who had low awareness of brands, and low exposure to marketing were more likely to be from Beijing.

### **THE MAJORITY OF WOMEN WANT TO BREASTFEED**

Most women were extremely positive about breastfeeding and its benefits, the majority of pregnant women planned to breastfeed exclusively (76%). Overall, 78% of women agreed that 'it is best for the baby' and 97% agreed that it encourages better bonding between mother and baby. The most cited benefit of breastfeeding was providing immunity to the infant (45%). Both women, HPs and influencers spoke of how breastfeeding has become more normalised and desirable, and more women are educated about the benefits of breastfeeding. Many women spoke of how they chose to breastfeed based on recommendations from health professionals, and information that they received in hospital. Although attitudes towards breastfeeding were positive, women were often not aware of the superiority of breastfeeding over formula. For example, 56% of all women surveyed agreed with the statement that

breastfeeding and formula feeding provide the baby with the same health benefits, and only **47%** agreed that breastfed babies are healthier than formula fed babies.

### **RETURN TO WORK IS A KEY REASON WHY WOMEN TAKE UP FORMULA**

The return to work is identified as a key time point at which women introduce formula. Women discussed how breastfeeding was difficult, or not possible, whilst also working. Cited reasons to introduce formula milk included the difficulty of expressing versus the convenience of formula feeding, added stress which they felt affected breastmilk supply and quality, allowing others to feed, and not having sufficient energy to feed throughout the night. Nearly three quarters (**73%**) of all women surveyed agreed that formula is 'the better choice if mothers decide to go back to work'. Working mothers reported challenges around balancing the need to continue breastfeeding whilst trying to fulfil their duties at work and home. Many women said that their employer needs to offer more support to breastfeeding women, and some spoke of how difficult or impossible it is to pump at their place of work. Furthermore, some women doubted the quality of pumped milk, and said that they wouldn't pump because of fear of the safety of stored milk.

### **FORMULA IS SEEN AS NUTRITIOUS AND IS POPULAR FOR LIFESTYLE REASONS**

Nutrition was the top cited benefit of formula feeding, and many of the adverts positioned as providing superior nutrition. Reports from women suggested that they viewed formula as a modern alternative for an independent lifestyle with some stating that breastfeeding caused children to become 'too attached' to the mother. Feeding formula was also attributed to a more convenient life, **82%** of all women surveyed agreed with the statement that formula 'keeps babies fuller for longer', **53%** agreed that it 'helps babies sleep better', and **72%** agreed with the statement that 'formula allows you to get your life back quicker'.

### **WIDESPREAD BELIEF THAT THERE IS A NEED TO INTRODUCE FORMULA**

There is a pervasive culture of doubt around the availability and benefits of breastmilk amongst both women, influencers, and HPs. Women and HPs spoke of the need to supplement with formula in the first days of an infant's life. Women frequently discussed how they did not have enough breastmilk, and worried that their baby would be hungry, would not be able to sleep, or that breastfeeding may impact on the infant's development. This doubt fuelled the perception that there is a need to supplement with formula even when breastfeeding. Some women believed that formula milk could provide added nutritional benefits that exclusive breastfeeding may not provide. Another common belief was that the quality and quantity of breastmilk depletes overtime, especially at the 6-month mark. Doubts were focused on nutrition, with the idea that nutrition in breastmilk decreases over time. Uncertainty around breastmilk also appeared common among HPs, who were found to directly or inadvertently promote and normalise the need for formula milk both in the first days and later on.

### **FRIENDS AND OTHER MOTHERS ARE THE MOST INFLUENTIAL ON WOMEN**

Findings from interviews with women, HPs, and influencers demonstrated how important friends and other mothers' opinions are to women. The majority of all women surveyed reported that friends and family are a key source of information on infant feeding (**79%**), followed by apps on their phone (**65%**) and WeChat (**59%**). Friends are also influential on women's perception of brands and purchasing behaviours. When asked about where they had heard a brand is 'best', over half of all women surveyed (**56%**) said that they heard this from friends, and **63%** of women who are or plan to formula feed, had chosen a brand of formula because their friends or family use it.

Findings also revealed the importance of Wechat Moms groups, which are very popular amongst pregnant women and mothers, and are viewed as an influential source of information on feeding. Grandmothers and grandmothers-in-law spoke of how Moms groups are the main channel for new mothers to gather information and find solutions.

HPs also discussed how influential Moms groups are, especially once mothers' have left the hospital and usually do not have direct contact with HPs.

The opinion of friends was found to be more influential on women's infant feeding attitudes and decisions than the opinions of husbands, and grandmothers and grandmothers-in-law. Interviews with husbands revealed how they felt they played an influential role on women's infant feeding decisions, and how they support breastfeeding. Grandmothers and grandmothers-in-law spoke of how they offer advice and support, yet findings from the survey and qualitative interviews demonstrated that women rely on friend's and other mothers' advice. Yuesaos (a helper during the first month after delivery - mainly for a medium to high income mother) are also seen to be a very influential group and can play a key role in mothers' infant feeding journey. Whilst findings suggest that Yuesaos support breastfeeding, some spoke of how women need to use formula, and some women discussed how their Yuesao had recommended introducing formula.

### **HEALTH PROFESSIONALS SUPPORT BREASTFEEDING BUT CONTRADICT THEMSELVES**

The majority of Health Professionals (HPs) were extremely positive about breastfeeding and spoke of how they promote it within their practice. Many discussed how there has been an increased interest in and investment into breastfeeding in recent years, especially in hospitals. HPs spoke of how this generation of pregnant women and mothers are more knowledgeable and informed of the benefits of breastfeeding, and that this has also helped to increase breastfeeding rates. Most HPs discussed how hospitals follow strict regulations to encourage women to breastfeed, including compulsory classes on breastfeeding, and prohibiting promotion of formula on the ward. Many commented on how health institutions have become much stricter on the marketing of formula milk in recent years, aligning with Government policy.

The efforts to support and promote breastfeeding have the potential to be undermined by the active targeting of HPs and medical settings by formula milk companies. HPs spoke of how formula milk companies still hold or sponsor seminars, conferences, and events, especially for special formulas, and how some hold partnerships with key Chinese medical institutions. Some HPs mentioned that they had received materials, research articles, and samples from formula milk companies. HPs are sometimes employed as brand representatives, and host online videos and recommendations, and conduct live online question and answer sessions for brands. Formula milk companies also provide free products for HPs to test and review on e-commerce platforms, in order to build brand image and word-of-mouth recommendations. Most HPs stated that they would never recommend a brand of formula to women. However, a few mentioned that they would recommend a brand of special formula, and one spoke of how they recommend Chinese brands. Some women spoke of how they had been recommended formula by a health professional. Findings from interviews with women also revealed that some private hospitals hold workshops funded by formula milk companies, and women often receive samples within these workshops.

HPs spoke of how the return to work is a critical time point when women introduce formula. Many discussed how women also introduce formula because they doubt the quality of their breastmilk, and marketing fuels and supports this doubt. However, HPs sometimes also fuel the doubt around breastmilk quality, and many also believed that supplementing with formula is necessary as they perceive the quality of milk changes, or there is a need for 'added nutrition'. Several of the HPs held the belief that women should introduce formula milk and spoke of how women need to move on to formula especially around the 6-month stage. Some also felt that a woman's diet or stress affects the quality of her breastmilk.

### **BREASTFEEDING PROMOTION IS NEEDED BEYOND HOSPITAL**

Women, influencers, Yuesaos and HPs spoke of the barriers to breastfeeding and how there is a need for more support for women. In total, **88%** of survey respondents agreed with the statement that there should be much more support to help women breastfeed successfully. Women spoke of how extending maternity leave could help women to recover and breastfeed for longer; how they would like more advice on breastfeeding from health

professionals; and to have more tools or products that could help with breastfeeding. Whilst many women, HPs and influencers recalled promotion for breastfeeding within hospital, and at events and seminars, many said that they had not seen breastfeeding information or promotions outside of the hospital experience.

HPs and Yuesaos spoke of how whilst most women are aware of the benefits of breastfeeding, many women need help and motivation to stick at breastfeeding. However, HPs and Yuesaos may advertently or inadvertently influence women to introduce formula, or diminish her confidence in her ability to breastfeed. Many HPs and Yuesaos also discussed how some women may need to feed formula, and shared misperceptions around women's ability to feed, the quality of their milk, or the benefits of formula. Findings suggest that education and supports are also needed for HPs and Yuesaos so that they wholly understand the benefits of exclusive and continued breastfeeding, and that they actively support women to overcome the barriers to breastfeeding, and help boost women's confidence and efficacy to breastfeed.

Breastfeeding promotion and support are also needed at the societal level. Many women spoke of how breastfeeding can be difficult because they feel ashamed or judged if they breastfeed in public, and discussed how they would like higher social awareness and understanding of breastfeeding. Some also spoke of how they would like more support and emotional encouragement from their partners, family members, and employers. Findings demonstrate the need to provide key influencers with the tools to support pregnant women and mothers in their breastfeeding journey, and to create a supportive and enabling environment for breastfeeding.

There are several key moments in which mothers face exposure to marketing for formula, and often make the decision to, or feel like they have to, switch to feeding formula. Intercepting with communications at these timepoints offers real potential for communications to influence attitudes and optimal breastfeeding behaviours. It is clear that there is a marked need for education and communications around the wonders of breastmilk, and its benefits at each stage of an infant's life, including beyond 6 months of age. Sticky, salient communications can motivate positive breastfeeding practices and sensitise the audience to prominent misconceptions around formula milk. Findings from concept testing interviews with Yuesaos revealed that any campaign or advocacy movement to support breastfeeding must provide targeted information on the benefits of breastfeeding, must encourage women to persevere with breastfeeding, and must engage wider society.

Results also point to a need for extended regulations, and stricter enforcements of current regulations on the marketing of formula milk in China. Formula milk companies are using legal loopholes and innovative tactics to promote formula milk. Pregnant women and mothers can find themselves inundated by formula marketing, on Moms' groups, social platforms, traditional media and even in the hospital. Evidence was also found of marketing of stage 1 formula, free samples of formula, and promotions within some hospitals. Digital marketing in China is rife, and channels such as WeChat Moms groups are often a key source of marketing for formula milk companies. Furthermore Stage 2, 3 and 4 formulas are often promoted in a way that makes it difficult to distinguish from infant formula, which creates further confusion around products and whether there is a need to introduce formula. This suggests that regulation needs to be tightened to ensure that hidden marketing, or marketing of products that position themselves as a substitute to breastmilk is not occurring. Regulators and policymakers should be equipped with the power to impose and enforce stricter regulations around the marketing of formula milk. Furthermore, HPs and other key professionals should be educated on conflict of interests, to ensure that their partnerships with formula milk companies does not inflict on their practices.

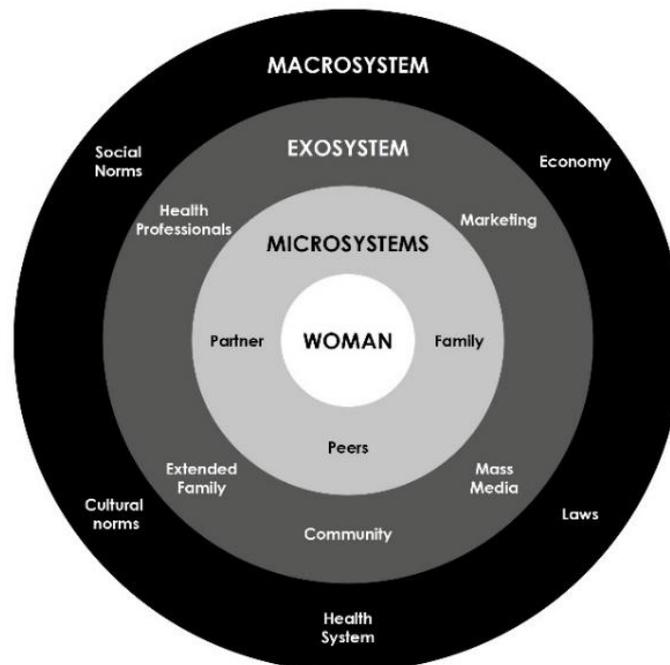
### 1.3 Approach

The approach to this study is inspired by Bronfenbrenner's Ecological Systems Theory<sup>4</sup> (EST) which considers the influence of intrapersonal factors (e.g. individual's biology), interpersonal (social and cultural) and organisational, community, environmental and policy on health attitudes, intentions and outcomes. Breastfeeding initiation,

intention, and duration are complex behaviours influenced by a multitude of factors, and EST recognises this complexity. This study aims to capture the influence of marketing on women’s infant feeding practices within and across countries. Figure 1 illustrates influences at the Micro, Exo and Macrosystem and demonstrates the interconnecting nature of the ecology of women’s infant feeding decision-making. The influencing systems are interdependent, multi-directional and interactive. The Microsystem captures the interpersonal influences in a woman’s day-to-day interactions and include partners, families, friends, neighbours and colleagues. The Exosystem indicates influences from the extended community and includes health professionals and influences from marketing and advertising. Cultural and social context, government policy and the economy comprise mitigating factors at the Macrosystem level.

The focus of this research includes infant formula for infants less than 6 months, follow-on formula for 6 months plus, and growing-up milks for 12 months plus. In China, ‘infant formula’ can also be referred to as Stage 1 formula, and ‘follow-on’ formula is often referred to as Stages 2 formula, while ‘growing-up milks’ are categorised as stages 3 and 4 formula.

**FIGURE 1:** Ecology of influence<sup>5</sup>



## 1.4 Research objectives

Three overarching research objectives form the foundation of this study.

1. To examine pregnant women’s and mothers’ decisions on early infant feeding practices and the influence of marketing on these decisions
2. To explore the attitudes and perspectives of pregnant women, mothers, influencers, and their communities on early infant feeding decision-making
3. To understand the marketing approaches used to promote formula milk in order to promote breastfeeding and support breastfeeding mothers and their communities

## 1.5 Research questions

The overall influence of marketing can be thought of as having two dimensions: (1) its effectiveness (how much it changes behaviour when it is present as opposed to what behaviour would have been in its absence) and (2) its extent (to what degree the activity was present). The overarching research questions are how pervasive is formula milk marketing? And does it change the attitudes and behaviour of those subject to it? To inform this, four key research questions were investigated.

### **1. WHAT IS THE CURRENT MARKETING LANDSCAPE ACROSS THE RELEVANT COUNTRIES?**

What methods are marketing companies using to reach consumers? What messages are women, health professionals and influencers receiving from formula companies (where, when, what do they say?) What marketing messages and brands resonate with consumers?

### **2. WHAT ARE CONSUMERS' INFANT FEEDING INTENTIONS AND BEHAVIOURS?**

What are women's sources of information about infant feeding? How do mothers' report their ability to breastfeed? Does formula milk advertising influence their reported ability and self-efficacy to breastfeed? What, if any, are the incentives to formula feed? How influential is marketing as a trigger to initiate formula feeding or to stop breastfeeding early? What are the formula milk initiation behaviours? What are the switching behaviours (change in feeding choice over time) and when do these happen?

### **3. WHAT ARE WOMEN'S ATTITUDES TOWARDS formula milk?**

What are women's views and perceptions of formula milk and breastfeeding? What are the central themes appearing in offline and online conversations around formula milk? And how are the marketing messages related to their perceptions of formula milk? How do women understand differences in formula milk products by infant age and brand? Do women perceive a value in follow-on and toddler formulas/growing up milks (stage 2/3/4 milks)?

### **4. WHO ARE THE KEY SOURCES OF INFLUENCE?**

Who are the critical sources of influence on woman's feeding decisions? What are influencers' views and perceptions regarding formula milk? What, if any, do they see as the health benefits of formula milk? What do health professionals think are the optimal infant feeding practices? What are their views on formula milk? What, if any, outreach by formula milk companies do health professionals experience? Do health professionals perceive a value in follow-on and toddler formulas/growing up milks (stage 2/3/4 milks)?

## **1.6 Methodology**

The study methods comprise of three workstreams, and a layered approach to data collection was employed. See Appendix A for detail on the study methodology.

### **WORKSTREAM 1: DESK REVIEW AND MARKETING ANALYSIS**

A desk review and Marketing Analysis was conducted first to inform the themes explored within the primary research and ensure all tools used were appropriate for China. The marketing analysis was broken down into three main categories.

- Market mapping and analysis
- Investigating local advertising landscapes
- Traditional media landscaping (offline and online media content analysis)

### **WORKSTREAM 2: PREGNANT WOMEN AND MOTHERS**

Workstream 2 consisted of four research methods and was designed to gather insight into a women’s decision-making process through capturing detail on her own personal experiences. The four methods employed across Beijing and Jinan included:

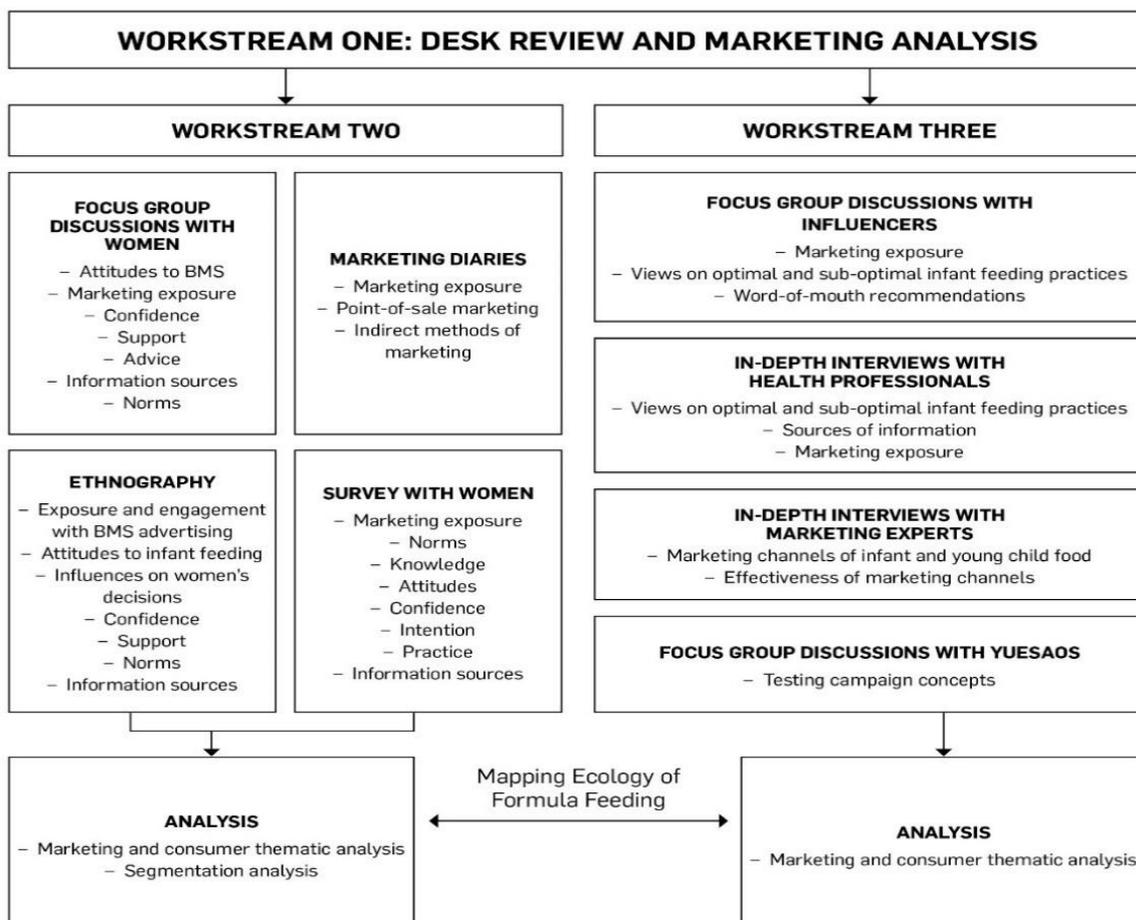
**Phone diaries, Focus Group Discussions and Ethnographic Interviews**

The Phone Diary exercise involved 20 pregnant women and mothers recording their daily experiences of exposure to formula milk marketing. Ten of the diary participants (all mothers) were selected to take part in interviews, in which women were asked questions about the media exposure captured in phone diaries and its impact on their perceptions and attitudes. Ten FGDs with pregnant women and mothers with infants aged 0-18 months were conducted.

**Survey**

The survey was conducted online via an interview using tablet assisted software (CAPI). In total 1050 women (750 mothers with infants aged 0-18 months and 300 pregnant women) answered the survey. The survey aimed to examine and quantify women’s exposure to formula milk marketing, and attitudes regarding infant feeding practices. Convenience methods were employed to recruit the survey sample. An overview of the recruitment strategy and breakdown of the survey sample is available in Appendix A.

**FIGURE 2: Study methodology**



**WORKSTREAM 3: ‘INFLUENCERS’**

Workstream 3 investigated the attitudes and perception of individuals that may influence women’s infant feeding decisions. Workstream 3 was comprised of:

### ***Focus group discussions with Influencers***

Three FGDs were conducted in Beijing with 4 influencers including partners, family members, friends, and community members. These individuals were partners, grandmothers and grandmothers-in-law, and friends, of pregnant women and mothers with infants aged 0-18 months. Focus groups with influencers explored their views on marketing of formula milk products, how it impacts upon their attitudes and perceptions and their role in women's infant feeding decisions.

### ***In-depth Interviews with Health Professionals***

Twenty in-depth interviews were conducted with HPs. These interviews focused on understanding the perceptions of HPs on infant feeding practices, as well as their interactions with and influences from, formula milk-related companies.

### ***In-depth Interviews with Marketing Executives***

Ten interviews with Marketing Executives in Beijing were undertaken. Interviews explored experience of marketing formula, methods used, and views on changes in trends around formula in recent years, and predictions for the future. Marketing executives included advertising agency directors, media planners and market research managers, who have worked on campaigns, strategy or in-house for domestic and international brands.

### ***Concept testing with Yuesaos***

Two FGDs with Yuesaos were undertaken in Beijing. Interviews explored Yuesaos reactions to, and suggestions for, campaigns to promote and support breastfeeding. The groups explored Yuesaos views on the barriers to breastfeeding, and tested campaign concepts that were created based on the study findings.

## **1.7 Quality control**

Two local Quality Assurance (QA) Managers were recruited to train agency staff and to monitor all aspects of the qualitative and quantitative fieldwork. A number of measures were undertaken to ensure quality during the implementation of the study. Research tools were pre-tested by the local agency and piloted with women to check understanding of questions and their appropriateness for the Chinese context. Language and translations were also checked by the QA managers, and staff at UNICEF and the Capital Institute of Paediatrics, and where necessary amendments were made. Focus group discussions, health professional interviews, ethnographic interviews and survey interviews were observed by the QA managers, and staff at the Capital Institute of Paediatrics, UNICEF, and M&C Saatchi World Services for quality control purposes.

The following additional quality checks were performed during the fieldwork stage:

- All FGDs and in-depth interviews were audio recorded to allow for quality control. Verbatim transcripts were written based on audio records. In addition, interviewers wrote a short topline summary after each research activity outlining main findings, and highlighting any parts of the discussions that did not work well and suggestions for future sessions.
- A series of checks were run on the pilot and final survey datasets. These consisted of checks on outliers, logic checks to identify any routing errors and checks on sample composition.

## **1.8 Data analysis**

### ***Qualitative analysis included:***

A master codebook for the qualitative research was developed which incorporated thematic codes developed through the following:

- Transcripts and notes were used to develop a thematic framework. This thematic framework was informed by the research questions and incorporated key themes identified. These themes were used to filter and classify the data.
- Data was indexed, which involved sorting the data by themes, highlighting quotes, and making comparisons both within and between groups.
- Data was then charted, defining concepts, creating typologies through data reduction, comparing and contrasting data and grouping similar quotes together under identified and modified themes, and uncovering associations between and within groups.

***Quantitative analysis included:***

- Descriptive analysis of data on women's attitudes to infant feeding, infant feeding practices, exposure to marketing, sources of information on feeding, and views on products.
- Statistical analysis was undertaken to explore the relationship between exposure to marketing and women's attitudes on infant feeding.
- Segmentation using cluster analysis was employed to explore the diversity of exposure to marketing of formula milk, and its relationship with attitudes to infant feeding.

## DESK REVIEW AND MARKETING ANALYSIS IN CHINA

This section covers the main headlines from a desk review, market reports, an overview of the main marketing channels, and a discussion of the marketing themes.

### 2.1 Infant feeding in China

In 1995 China introduced the *Marketing of Breastmilk Substitutes Management Measures*, The International Code on the Marketing of Breastmilk Substitutes was partially adopted. The Measures prohibited advertising of formula milk, publicity of formula milk in the media, and mandated that formula milk packaging must: Not show pictures of infants; Not include “humanised” and “maternised” terms; and labels must include a statement on the superiority of breastfeeding.<sup>6</sup> In 2016 the Measures were repealed without any replacement, leaving a much less strict ban on advertising.<sup>7</sup> It has been said that the abolishment was driven by economic interests, pressure from industry, and the onslaught of new marketing channels and methods.<sup>8</sup>

The abolition of measures means that there is no legislation to comprehensively regulate the marketing of formula milk in China. The *Implementation Measures for the Maternal and Infant Health Care Law*, and the *Advertising Law* related to advertising and promotion of infant formula, include some provisions regarding the marketing of formula milk. The *Implementation Measures* prohibit healthcare institutions from promoting or recommending infant formula to women or their families; stipulate that formula milk labels must include a statement on the superiority of breastmilk; and ban producers and sellers of formula milk from providing healthcare institutions with funds, materials, equipment, or free samples of products. The *Advertising Law* prohibits advertisements for any foods, drinks or products that position themselves as a replacement for breastmilk.<sup>9</sup>

The rate of breastfeeding in China has increased in recent years, but is still well below national targets. The most recent survey on breastfeeding rates in China, derived from a survey of 10,408 women from June-November 2017 across 12 regions, reported that the exclusive breastfeeding (EBF) rate of infants under six months old in China is 29.2 percent. The survey revealed that only 11.3 percent of the participants breastfed their children within an hour of birth.<sup>10</sup> Findings suggest an increase in the rate of breastfeeding compared to 2013, when the Chinese Nutrition and Health Surveillance survey found that the crude rate of EBF was 20.8% at 6 months, the weighted rate was calculated at 18.6%.<sup>11</sup> <sup>12</sup> This is much lower than the target set by the National Health Commission, which in the National Nutrition Plan (2017-2030) outlined an ambitious target of 50% exclusive breastfeeding by the year 2020.

Multiple studies have found that the advertising of formula milk impacts on breastfeeding in China. A study by CDRF found that the advertising and promotion of infant formula increases the likelihood of mothers feeding formula in the first six months by 30.8 percent. Correspondingly the exclusive breastfeeding rate for mothers who have been advised to use infant formula was 21.0%, which is 11.1 percentage points lower than for mothers who have not been advised to do so. A cross-sectional survey of 726 mothers within 6 months postpartum and 241 hospital staff

conducted in Hangzhou and Shenzhen between 2013 and 2014 found that 47.2 percent of the staff recommended a formula, and that recommendations from hospital staff contributed to the use of infant formula.<sup>13</sup> In 2018 the China Consumers Association organised an investigation into the promotion and sales of formula milk. The survey interviewed 6,102 female consumers with an infant aged 0-12 months. Compared to previous research conducted ten years ago, the proportion of mothers who reported that formula is “convenient, simple and nutritious” had increased significantly, and there were a large number of women who reported being more concerned about their body shape and therefore choosing formula milk. Direct evidence of the impact of marketing of formula was also found in a study conducted in Hong Kong, which examined the influence of the implementation of a policy which mandated that hospitals must pay market price for infant formula. The study found that rates of formula supplementation were significantly reduced, and breastfeeding duration increased, after hospitals stopped accepting free infant formula from manufacturers.<sup>14</sup>

## 2.2 Formula milk market and marketing

### 2.2.1 MARKET REPORTS

Market reports revealed that there is a huge appetite for formula milk in China, sales of milk formula have increased year on year from CNY 118,715.3 million (volume equivalent of 553K tonnes) in 2014 to CNY 175,479.1 million (683K tonnes) in 2019.<sup>15</sup> This is despite the falling birth rates as in 2019 the birth rate was 10.48 per 1 - the lowest since 1949.<sup>16</sup>

Market data also revealed that domestic formula milk companies have gained a significant share of the formula market. The *Infant and Toddler Milk Formula Registration Regulation* (the New Registration Regulation) was officially implemented from 1 January 2018 and has enabled leading formula milk companies to make significant share gains at the expense of smaller companies that did not receive registration. Small, unregistered brands are disappearing from the market leading to the category increasingly becoming an environment for fierce competition between the major formula milk companies. The Chinese government’s efforts to improve the quality of domestically made milk formula is driven by the belief that milk formula is a key product for China’s importing capacity and thus revenue as a country.<sup>17</sup> These efforts seek to counter a plummet in demand from 75% to 39% in 2015 following the Melamine scandal<sup>2</sup> involving a domestic brand formula.<sup>18</sup>

Special milk formulas are increasingly popular in China, this category comprises of lactose-free, pre-maturity and hypoallergenic milks. There has also been a growth in the sales of premium products, which are defined as costing between 330 RMB to 430 RMB, or ultra-premium which is defined as costing over 430 RMB. Error! Bookmark not defined. In 2019, premium and ultra-premium milk formula segments accounted for 61% of the market (approximately 40% and 20%, respectively).

### 2.2.2 MARKETING THEMES

The key themes employed in marketing of formula milk can be broadly placed into three categories. These themes are employed to communicate product origin, scientific benefits, and to empathise with the concerns that women have. This analysis was sourced from Nielsen Advertising Intelligence for the period covering the end of 2016 into 2019, across 5 key brands.

#### **Science and expertise play a central role in marketing**

Formula milk companies often use technical terms to describe the components in formula milk products in order to portray their scientific nature. Advertisements and products highlight ‘innovative technology’ or the ‘years of

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<sup>2</sup> The Melamine scandal of 2008 involved milk and infant formula along with other food materials and components being adulterated with melamine

nutritional research and academic study' behind their products. This builds a narrative that rigorous research goes into formulating their products, and is used to mitigate fears around the safety of milk. Formula milk companies also use scientific language to further indicate their own expertise. Products are often marketed based on their 'special ingredients' such as 'sphingomyelin' for 'neural network development', and are often 'endorsed by experts' to express credibility of the brand.

### **Association with purity and European origin**

The Melamine scandal of 2008 created a fear around the safety of infant formula produced in China, and promoted a preference amongst consumers for internationally produced formulas. To mitigate this fear marketing often focuses on the pureness and international heritage of products. Advertisements often refer to their products as 'naturally pure' or 'organic'. A central theme of advertising is also a focus on either the product heritage, or the heritage of the cows milk, for instance 'Made in Switzerland', or 'milk from cows fed on green pastures in Holland'.

### **Sympathises with common parental concerns**

Marketing often focuses on mothers concerns and seeks to demonstrate that products offer a solution to the concerns. For example, products are situated as a solution to feeding a child who is underweight or a 'fussy' eater. Success and development are often the central focus of marketing. Several brands present their products as a means for parents to provide their child a level of success that they were unable to achieve.

## **2.2.3 SUMMARY**

Findings from the desk review demonstrated that there has been an increase in Exclusive Breastfeeding Rates in China in recent years, however the EBF rate at 29% is still below Government targets of 50%. Results from the Marketing Review revealed a huge appetite for formula milk in China despite falling birth rates. Sales of formula milk and baby food have grown rapidly in recent years, and China is the biggest consumer of infant formula in the world. Domestic companies have become more popular among Chinese consumers, largely due to increasingly strict government supervision on manufacturing.

## 3

## WOMEN

This section summarises the findings from 20 phone diaries, 10 ethnographic interviews, 10 FGDs and a survey with 1,050 respondents, all of whom are pregnant women and mothers of infants 0-18 months across Beijing and Jinan.

### 3.1 Exposure to marketing

Exposure to marketing was captured through interviews, a survey and phone diaries. The phone diary exercise involved 20 women recording any exposure to marketing for formula across one week. These diaries were analysed to look at the channels of marketing captured, and the themes of the marketing. In total 20 women recorded **234** entries in 7 days, of which **130** were explicit advertisements for a formula milk company or brand. Other entries included articles which evaluated or recommended formula, WeChat Mom groups, media content including formula, and conversations including recommendations for formula.

The number of diary entries by an individual ranged from 7 to 33. WeChat was referenced most often as the source of marketing (**76** entries). Findings demonstrate that marketing for Stage 1 formula still occurs, this goes against the *Advertising Law* which prohibits advertisements for any foods, drinks or products that position themselves as a replacement for breastmilk.

**TABLE 1:** Types of formula milk marketed<sup>3</sup>

INFANT/STAGE 1	FOLLOW ON/ STAGE 2	TODDLER/ STAGE 3	CHILD/ STAGE 4	MATERNAL MILK	SPECIAL MILK, ALLERGY, HUNGRY, SOYA
16	23	62	5	4	3

*N=20 mothers and pregnant women across Beijing and Jinan*

**TABLE 2:** Channels of marketing

WECHAT	APP	WEIBO	TIKTOK	WEB OTHER	IN-STORE SHOPPING	ONLINE SHOPPING	PRINT	TV	OTHER	OTHER: FAM/FRI
76	45	4	24	28	4	30	7	7	5	4

*N=20 mothers and pregnant women across Beijing and Jinan*

**TABLE 3:** Diary results for product claims

SUPPORTS DIGESTION	IMPORTED FROM ABROAD	NUTRITION	STRICT QUALITY /RESEARCH STANDARDS	GOOD VALUE	BRAIN DEVELOPMENT	TAILORED TO CHINESE BABIES	SUPPORTS IMMUNE SYSTEM	DOMESTIC
28	27	24	18	18	16	16	14	11

*N=20 mothers and pregnant women across Beijing and Jinan*

<sup>3</sup> Note tables do not sum to 234 as some entries did not include a picture of formula, or it was not clear what stage of formula was being advertised.

The most frequently recorded claims of marketing included that the product encouraged good digestion, is imported from abroad, and contains nutrients. Multiple advertisements focused on the heritage of the formula, such as the claim that the formula is imported from abroad. A range of brands used promotional discounts to advertise their brand across social media, e-commerces, apps, and online. The promotions recorded included free samples, discounts, free trials offered by the brand, and also the chance to win free gifts. The most frequently recorded promotion was a discount on the price of purchase. Other promotions recorded included the chance to win a free prize upon purchasing a product, or by trialling the product.

### 3.1.1 LEVEL OF EXPOSURE TO MARKETING

The survey captured the extent to which mothers and pregnant women have been exposed to marketing of formula milk. Overall, **97%** of mothers and pregnant women reported that they had seen or heard some type of marketing of formula milk in the last year.<sup>4</sup> Television achieved the greatest reach, **72%** of women who were exposed to marketing reported that they had seen marketing of formula milk on TV on the past year, corroborating previous research findings that TV is an important source of influence in China.<sup>19</sup> Marketing on TV included advertisements for brands, product placements in TV shows, and sponsorship of variety shows by formula milk companies. Over half the women (**58%**) who have seen marketing, had seen it in a supermarket or other shop. Other channels of marketing included online videos (**41%**), other social media (**41%**), in an elevator (**35%**), shopping online (**31%**) and on Mom's groups (**30%**).

When respondents were asked about the type of formula milk they had seen advertising for, over half of the respondents (**56%**) stated that they had seen marketing for Stage 1 or infant formula. Marketing for stage 2 (**42%**) and Stage 3 formula (**40%**) was less frequently recorded, while advertising for Stage 4 formula was only seen by **15%** of respondents. The *Advertising Law* prohibits advertisements in the mass media or public places for dairy products, beverages, and other foods for infants that claim to be substitutes for breastmilk.<sup>20</sup> Recall of marketing of Stage 1/Infant formula could demonstrate confusion around the age of infant that the product is marketed for. Advertisements often featured infants at the lower end of the age range of the product advertised, e.g. a young 1-year-old. However, findings from the phone diaries suggests marketing of Stage 1 formula still occurs, despite legislation around this.

### 3.1.2 CHANNELS OF MARKETING

Marketing channels are often categorised into 'Above' and 'Below-the-Line' channels. Above the-Line (ATL) channels include all types of communication which involve the use of mass media channels such as television, cinema, radio, print. ATL channels are usually employed to inform customers, raise awareness and build a brand. Below-the-Line (BTL) channels are direct methods of communication such as emails, promotions and events, and are usually employed for more active and personalised targeting.<sup>21</sup> Findings from the qualitative interviews, diaries and survey revealed that women are exposed to formula milk marketing across a wide range of Above and Below-the-Line channels.

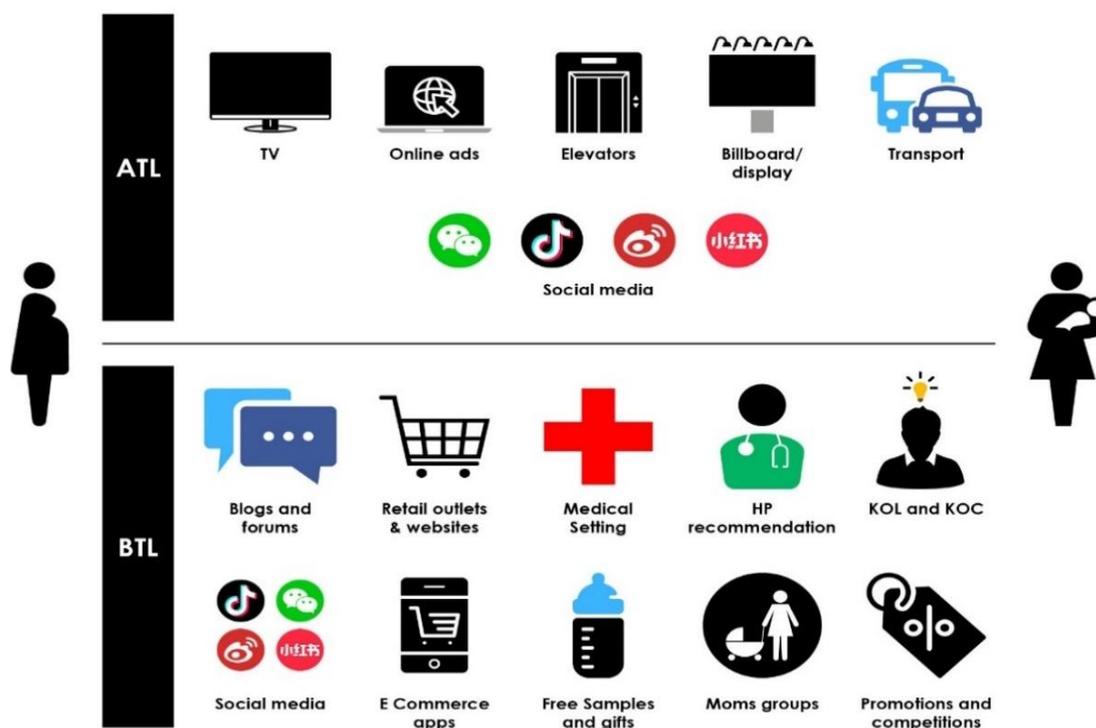
Above-the-Line marketing included TV outdoor advertising, and elevators. Women reported that elevators are an effective platform for marketing because they often see the adverts on a regular basis.

***"The one in the elevator was also very appealing. I went to Taobao and searched for the formula that I saw in the elevator advert". (Mixed Feeding Mum 12-18 months, Jinan Ethno 8)***

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<sup>4</sup> In the past year have you seen or heard any advertising for formula milk? When I say 'advertising', this could include information or promotions on formula milk, YouTube or other videos, sponsored websites, Facebook or other social media sites and chat rooms as well as TV, radio, and billboard advertising

FIGURE 3: Above and below the line advertising captured in China



Promotional offers and gifts were marketed through multiple channels including online, in-store, and through WeChat and other social media platforms, **68%** of survey respondents had experienced offers or promotional discounts, and **38%** had received other gifts from a formula company. Women reported receiving free samples in a variety of place including at shopping malls, in and outside of hospital, at events. More than a third of women report receiving free samples outside hospitals (**40%**). Free samples were also acquired online, women spoke of how they registered and received products in the mail. Samples were for a variety of products including maternal milks, toddler and growing-up milks.

*“after I gave birth to him, I didn’t know who leaked the information, the ad person or others would send me one pack, they seemed to be fighting for the first sip of formula milk. I attended some workshop as subsequent mom and they sent me too”.* (Breastfeed then formula 0-5 months, Jinan FGD 3)

Sales representatives in supermarkets and Mother and Baby stores often act on behalf of formula milk companies. Many women discussed how they were advised by sales staff on baby care and infant feeding, including which formula milk brand accounts to follow online, and which products to use. Some spoke of how they rely on these sales staff for advice on products.

Wechat Moms groups were regularly mentioned by women as an important source of information and advice on feeding. Many women spoke of how some mothers recommended brands of formula, or gave advice on feeding formula, others spoke of how they received promotions and discounts through Moms groups. It appears that some of these groups are organised by formula companies, and women are introduced to them through sales representatives for formula companies.

*“After adding them (Sales Rep) to my contact list, they would introduce me to certain Wechat group with many mother-to-be, probably we are at the similar pregnancy stage, due day might be 2 or 3 months’ away. In the group, they would advise us information, e.g. baby-feeding information, and where their formula milk is from.”* (Pregnant Women, Beijing, FGD 1)

Celebrities' endorsement of formula milk brands was also a notable feature of formula milk marketing on TikTok, WeChat and other platforms. Such marketing appealed to some women through displays of personal stories and challenges with breastfeeding and parenting, and recommendations of formula milk brands.

Marketing through health professionals (HPs) and health institutions was also captured. In total **29%** of women reported that they had received advice or recommendations for formula by health professionals. Whilst some women spoke of how they had been recommended formula by a HP, several spoke of how regulation around marketing was strict in their hospital. Some spoke of how they were not allowed to know the brand the hospital uses, or to bring their own formula to hospital.

***"I consulted doctor what to do if my breastmilk was not enough. They also advised that if my breastmilk was really not enough, it would be fine to choose formula, and current formula would be quite good, and many babies were fed with formula."*** (Formula Feeding Mum 0-6 months, Jinan Ethno 2)

### **3.1.3 FORMULA MILK PRODUCTS**

Findings from the phone diaries and market analysis demonstrated that there are a wide range of formula milk brands and products available to purchase in China, in 2018 alone at least 24 new products came to market. Several factors influenced women's choice of products including price, brand popularity, foreign brands, ingredients found in the product as well as finding the right fit for the infant. Word-of-mouth recommendations were found to be most influential on women's brand choice. Over half (**63%**) of women who are planning to feed their babies formula milk or use formula milk responded that they had chosen the brand because their friends or family use it.

Brand extension is a common feature of formula milk marketing, where companies have several products under the same brand name, for example stage 1-4 of a type formula. The aim of brand extension is to capture loyalty to the products as the infant grows. There is a high awareness of Stage 2-4 products in China, nearly all women surveyed (**96%**) were aware of Stage 2 and Stage 3 formulas (**94%**). Almost three quarters of women were aware of Stage 4/Growing Up milk (**73%**). The majority of women who were aware of these milks perceived that there is a need to use them- **80%** of those who are aware stated that there is a need to use Stage 2, **84%** stated a need for Stage 3, and **69%** for Stage 4. The most cited reasons for using stage 2-4 formula included 'it helps babies grow' (**61-68%**) and 'benefits brain development' (**49-60%**).

Formula milk companies frequently marketed their products as 'close/similar/inspired by' breastmilk. Many of the adverts focused on 'special' ingredients in formula that are derived from breastmilk, such as HMO. This focus on equivalence to breastmilk was commonly discussed in the qualitative interviews, with many women stating that X brand or product was close or equivalent to breastmilk. Over half (**54%**) of women surveyed had chosen the formula brand that they plan to or have used because they believe it is the 'closest formula to breastmilk'.

Findings from market reports and interviews with Marketing Executives demonstrate that Chinese brands have attempted to counter the prevailing belief that foreign brands are better for infants. This marketing appears to have imprinted on some women's minds, and many women spoke of how foreign brands were not appropriate for Chinese infants as they were not adapted to Chinese bodies and digestive systems. This demonstrates 'sticky marketing' where a message resonates and then is recalled as a reason to use a product.

### **3.1.4 INFLUENCE OF MARKETING ON ATTITUDES**

Exposure to marketing was found to be significantly related to positive attitudes to formula milk across numerous measures. Higher levels of exposure to formula milk marketing were significantly related to more positive views on the information formula ads provide, and their accuracy. Results suggest that adverts for formula are more

important and more trusted by women who have greater exposure to marketing. More than half (**54%**) of women who had been exposed to marketing in the past year, reported that formula ads helped them make decisions about how they will feed their baby. Women with higher levels of exposure to marketing (16 touchpoints or more) were significantly more likely to say that ads were more trustworthy (**44%**), compared to those who had only been exposed to 0-5 marketing touchpoints (**26%**).

***“I think if you have two products in store, one with ad and the other without any ad, you would go to see the product with ad because the ads would influence you subconsciously and you seem to have known it. If the product doesn’t have any ad, you are clueless to it.”*** (Jinan FGD 3, 0-5 months breastfeed then formula).

Higher levels of exposure to marketing is also significantly related with more positive attitudes towards formula feeding. Almost two-thirds of women who had high exposure to marketing (16+ times) agreed with the statement that ‘formula feeding provides babies with the same health benefits as breastfeeding’ (**70%**) and that ‘formula helps babies sleep better’ (**65%**) compared with less than half in the lowest band of exposure to marketing (0-5 touchpoints) (**48%** and **47%**, respectively). Almost one third of women (**34%**) who had low exposure to marketing (0-5 touchpoints) agreed that ‘formula is very like breastmilk’, compared to **47%** of women who had been exposed to marketing 16 times or more in the past year.

## 3.2 Infant feeding attitudes and behaviours

### 3.2.1 INFORMATION SOURCES AND INFLUENCES ON FEEDING CHOICE

Survey respondents were asked about the sources of information that they use (if any) when seeking information on infant feeding. The most cited source of information on infant feeding was friends, family members and other mothers (**79%**). Phone apps (**63%**), and WeChat or Weibo (**59%**) are important sources of information for women. Many women spoke of how they use their phone in order to answer their questions on feeding and products, and learn from apps and other mothers online. Books were also important sources of information for just over half (**52%**) of women. A Yuesao was also cited as very influential, and a key source of information on infant feeding for women.

### 3.2.2 COMMON PERCEPTIONS OF BREAST AND FORMULA FEEDING

Findings from multiple data sources uncovered women’s views on breast and formula feeding, and the perceived motivations and barriers to breastfeed, or feed formula milk.

	BREASTFEEDING	FORMULA
<b>Motivation</b>	<ul style="list-style-type: none"> <li>✓ Nurtures bonding between mother and baby</li> <li>✓ Nutrients in breastmilk</li> <li>✓ Safe</li> <li>✓ Customised for the baby</li> <li>✓ No need to prepare</li> <li>✓ Cheaper/economical</li> <li>✓ Good for mothers’ recovery</li> <li>✓ Enhances baby immunity</li> <li>✓ Seen as a norm for lower SES groups particularly in Jinan</li> <li>✓ Time and effort saving</li> </ul>	<ul style="list-style-type: none"> <li>✓ Perceived comprehensive nutrition, and changes in nutritional value to suit different stages in a baby’s development</li> <li>✓ Seen as more convenient for working mothers</li> <li>✓ Belief that it will minimise the separation anxiety of baby from mother</li> <li>✓ Other family members can help with feeding</li> <li>✓ Belief that Mothers’ diet will not affect baby’s health</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Beneficial for losing weight</li> </ul>	<ul style="list-style-type: none"> <li>✓ Belief that baby will become less needy</li> <li>✓ Idea that mothers will have more personal time</li> <li>✓ Idea that you can better control over time and quantity of feeding</li> <li>✓ Perceived better sleep</li> </ul>
<b>Barriers</b>	<ul style="list-style-type: none"> <li>× <b>Health reasons</b> <ul style="list-style-type: none"> <li>○ Mastitis</li> <li>○ Nipple pain</li> <li>○ Low breastmilk supply</li> <li>○ Sleep</li> </ul> </li> <li>× <b>Working mother</b> <ul style="list-style-type: none"> <li>○ Business trip</li> <li>○ Social activities</li> <li>○ Busy schedule</li> <li>○ Do not have place to store or pump breastmilk at work</li> <li>○ Fear that pumped breastmilk isn't as good quality</li> </ul> </li> <li>× <b>Social Awareness</b> <ul style="list-style-type: none"> <li>○ Lack of nursing rooms in public spaces</li> <li>○ Judgement from others when breastfeeding in public</li> </ul> </li> <li>× <b>Concern about self</b> <ul style="list-style-type: none"> <li>○ Body shape</li> <li>○ Breast shape</li> <li>○ Independence</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• It is not easy to digest</li> <li>• Can cause constipation</li> <li>• Can cause obesity</li> <li>• Can cause dental cavity problems</li> <li>• Concerns about contamination and safety</li> <li>• Expensive (especially for low-income moms)</li> </ul>

### 3.2.3 REASONS FOR BREASTFEEDING

Most women were extremely positive about breastfeeding and its benefits. The majority of pregnant women planned to breastfeed exclusively (76%), with less than one in five pregnant women planning to combine breastfeeding and formula feeding from birth (17%). Most women were extremely positive about breastfeeding and its benefits, 78% agreed that 'it is best for the baby' and 97% agree that it encourages better bonding between mother and baby. The most cited benefit of breastfeeding, in an open-ended multiple response question, was providing immunity to the infant (45%).

Discussions with women provided further insight into their reasons for breastfeeding. Women spoke of the physical benefits for the baby including boosting their immunity, and the importance of colostrum for their development. Breastfeeding is seen to deliver bonding moments for mother and baby, strengthen their relationship, and has other benefits including convenience, recovery of the mother, and 'getting body shape back'.

*"If I could, I would keep breastfeeding. I think human body is a magic. A mom could offer her baby the most well-rounded nutrition, including antibodies. I believe that antibodies are effective to boost baby's immunity."* (Formula Feeding Mum 6-12 months, Beijing, Ethno 5)

### 3.2.4 REASONS FOR FORMULA MILK

Interviews with women revealed multiple reasons for using formula milk. Nutrition was the top cited benefit of formula feeding in an open-ended question, with **38%** of respondents stating that nutrition is comprehensive. Women frequently discussed how they did not have enough/any breastmilk, and worried that their baby would be hungry and would not be able to sleep. Another common belief was that breastmilk quantity declined due to environmental factors such as stress, improper diet, return to work, age of woman and infant. Women were asked about the benefits of breast and formula feeding, this was an open-ended multiple response question.

***“I stopped breastfeeding very early since my breastmilk was inadequate, and it was not enough for him to drink at all, he was anxious to have more but he couldn’t get more. I worried that he didn’t sleep well due to insufficient breast milk, therefore, I stopped breastfeeding.”*** (Formula Feeding Mum 0-6 Months, Jinan, Ethno 6)

Many of the cited reasons to use formula milk were related to negative perceptions or experiences of breastfeeding. Women shared experiences of how breastfeeding can be painful. Many felt that breastfeeding in public is embarrassing, or awkward as there aren’t enough places to feed. Whilst some women spoke of how breastfeeding helps women to ‘get their body shape back’, others spoke of how breastfeeding was detrimental to a woman’s body shape.

Two prevailing reasons were given as the reason why women transitioned to formula or introduced mixed feeding. Firstly, many women stated that the quality of breastmilk declined, many felt that this was around 6 months, however some felt that this happens earlier or later. This belief normalises the ‘need’ to supplement or replace breastfeeding. Secondly, many women stated that the return to work was a barrier to continued breastfeeding. Women discussed the difficulty of expressing versus the convenience of formula feeding not having sufficient energy to feed throughout the night, and how breastfeeding was not possible whilst also working due to added stress which they felt resulted in a lack of breastmilk supply. Common perceptions around mixed feeding included that it is more convenient, combats low milk supply, that feeding formula at night-time would help the baby sleep, and that feeding both breastmilk and formula milk provides optimum nutrition.

***“When my child hit certain age, such as 5-month-a half, I started supplementing formula. I felt that breastmilk might not provide sufficient nutrition. Formula is a great supplement.”*** (Mixed Feeding Mum 6-12 Months, Jinan, Ethno 10)

### 3.2.5 SUMMARY

Findings reveal that marketing is ubiquitous in China, nearly all pregnant women and mothers reported that they had seen or heard an advertisement for formula milk in the past year. Women discussed how marketing plays an influential role on their infant feeding attitudes and practices. Exposure to marketing was found to be significantly related to positive attitudes to formula milk across numerous measures. Higher levels of exposure to formula milk marketing were significantly related to more positive views on the information formula ads provide, and their accuracy. Results suggest that adverts for formula are more important and more trusted by women who have greater exposure to marketing.

Most women were extremely positive about breastfeeding and its benefits. Breastmilk is seen as safe, clean, and trustworthy, and some women spoke of the nutritional benefits of breastfeeding. Women also spoke of how breastfeeding has become more normalised and desirable. However, there is a pervasive culture of doubt around the availability and benefits of breastmilk amongst women. Women spoke of the need to supplement with formula in the first days of an infant’s life. Many also discussed how they did not have enough breastmilk, and worried that their baby would be hungry, would not be able to sleep, or that it may impact on the infant’s development. This doubt fuelled the perception that there is a need to supplement with formula even when breastfeeding. Some

stated that formula milk could give the infant added nutritional benefit that exclusive breastfeeding may not. Another common belief was that the quality and quantity of breastmilk depletes overtime, especially at the 6-month mark. Many women also spoke of how breastfeeding in public can be embarrassing, and how more safe spaces are needed for breastfeeding in public.

## 4

# INFLUENCERS

This section highlights findings from 20 interviews conducted with Health Professionals (HPs) and 3 Focus group Discussions (FGDs) with Influencers (partners, family, and friends), 2 FGDs with Yuesaos, and 10 interviews with Marketing Executives.

## 4.1 Health professionals

### 4.1.1 PROMOTION OF BREASTFEEDING

All of the HPs interviewed spoke about how they promoted and supported breastfeeding, and there was a general consensus that breastfeeding is best for an infant in the initial weeks and months. Most of the HPs stated that breastfeeding is becoming more common, reasons outlined included social change influenced by the Government and hospitals, which have emphasised the importance of exclusive breastfeeding in the first 6 months; an increase in education levels among women which has led to increased knowledge and awareness of the importance of breastfeeding; and increased support for women to encourage and facilitate breastfeeding. Several sources of support and education were mentioned including pregnancy classes in the hospital, lactation specialists, and counselling from obstetricians, nurses, and other health professionals within hospital.

### 4.1.2 MOTIVATIONS TO USE FORMULA

The majority of HPs felt that women prefer breastfeeding, and most of the HPs insisted that typically, women do not choose to feed formula. Despite this, HPs provided many reasons to explain why mothers may be encouraged to use formula rather than to initiate or continue breastfeeding. Almost all HPs reported that breastmilk is beneficial for infants in the first months. However, many HPs stated that the quality of breastmilk decreases over time and felt that breastmilk does not have enough nutrients.

***“Yes, stage three and four formula is necessary. Because they have lots of the nutrients that a baby needs, especially those babies have a bad appetite and do not eat solid food well. Stage three and four formulas provide them with nutrients.”*** (Public Hospital, Nurse, JN IDI 3)

Whilst complimentary food is recommended at 6 months, many HPs spoke about how formula milk is also necessary, and how they felt that women should switch from breastfeeding and introduce formula milk. Many HPs felt that the nutrients provided in food or breastmilk are not sufficient for an infant aged 6 months plus, and therefore felt that Stage 2+ formulas are necessary. Although WHO/UNICEF guidance recommends breastfeeding to 2 years alongside complimentary feeding, many HPs stated that Stage 3 or 4 formula milk, rather than breastmilk, is required to supplement the infant’s diet.

Many HPs spoke about how women struggle to breastfeed once they have returned to work and are therefore having to stop breastfeeding prematurely. Additional reasons for using formula milk cited by HPs included allergies

or intolerances, the perceived convenience of formula, the influence of friends or celebrities, the increased marketing of standard and special formula milks, and an increased trust in formula milk.

### 4.1.3 EXPOSURE TO MARKETING

Most HPs explained that neither they, nor their patients, are exposed to marketing in health settings. One HP explained that the absence of formula milk advertising in hospitals is a recent phenomenon and recalled a past where adverts and marketing were more prevalent. Several mentioned that in the past free samples of formula were commonly given away in hospital settings, usually in lectures or workshops provided to pregnant women. However, some spoke of how free samples of maternal milk are now circulated in hospitals, and how these can be influential on women's choice of product.

***“At our hospital, we might at most offer free samples of diapers or formula milk for mothers, not for infants... If they used this brand during pregnancy, they might be influenced when they choose formula brands for infants.”*** (Public Hospital, Obstetrician, BJ IDI 6)

Most HPs reported that direct contact between HPs and industry representatives from formula milk companies is decreasing. HPs discussed how formula milk companies are contacting HPs less often because they can no longer recommend formula milk products in hospitals. In the instances where formula milk companies have reportedly continued to contact HPs, conversations no longer focus explicitly on recommending the brand. Instead, brand representatives provide a 'learning opportunity' by sharing information about their products, and about infant feeding and nutrition more generally.

Many HPs expressed support for collaboration between formula milk companies and hospitals/academic/research institutions, as they feel that this can be mutually beneficial to those involved. These collaborations are perceived as beneficial because they enable HPs to learn more about formula milk products, so that they feel more informed when supporting mothers.

### 4.1.4 HPS VIEWS ON THE IMPACT OF MARKETING ON WOMEN'S ATTITUDES

Most HPs did not have a problem with the principle of marketing of formula milk, and some spoke of how they feel that marketing facilitates informed choices. Many said that marketing is necessary to generate awareness of a product or brand to the public and other HPs. Opinions differed on the influence of marketing, some HPs felt that marketing of formula milk is highly influential on women's attitudes and behaviours. HPs spoke of how marketing which claims that formula is similar to breastmilk is very convincing to women. Other HPs believe that word of mouth is more powerful than marketing in terms of the influence exerted over women's infant feeding decisions, and some HPs spoke of the power and influence of Moms groups,

***“There must be some influence. In the advertisement, brands mention they use close to breastmilk ingredients in the formula to make mothers feel assured and confident, though they are not exclusive breastfeeding, it is necessary to add some formula.”*** (Public Hospital, Obstetrician, JN IDI 5)

## 4.2 Influencers

Influencers are deemed as close contacts of pregnant women and mothers, who may be influential on their infant feeding attitudes and decisions. In total FGDs with 1 'husbands' group, 1 'grandmothers/grandmothers in law' group, and 1 'friends' (of pregnant women and mothers) groups were conducted.

#### **4.2.1 INFLUENCES ON WOMENS INFANT FEEDING DECISIONS**

All influencer groups stated that friends are the most influential group on women's infant feeding attitudes and decisions. Peers are seen as more influential than other family members when it comes to making decisions about infant feeding because they are from the same generation, so their advice is seen as more relevant.

*"Friends' advice is more important than that of family members, because there are generation gaps between different generations."*(Friends, Beijing, FGD 3)

When asked about who makes decisions about infant feeding, the husbands group perceived the decision to be made jointly, and see themselves as a key influence on the mother's feeding decisions. Participants in the grandmothers/grandmothers-in-law group reflected that women seek minimal advice from either their husband or grandmother/grandmother-in-law, and instead make their decisions on infant feeding alone. This group considered themselves to have very little influence on a woman's infant feeding decisions, particularly because they felt their views are judged as old or traditional.

#### **4.2.2 INFLUENCERS VIEWS ON BREASTFEEDING**

All influencer groups believe that breastfeeding is the best option for newborn babies, and all said they advocate for exclusive breastfeeding. Influencers spoke of how they either previously knew about the benefits of breastfeeding, or had learnt about the benefits from health professionals, or in pregnancy classes. Participants from all groups spoke of how the 'early breastmilk' or colostrum is most valuable to the baby.

When discussing the advantages of breastfeeding, a frequently mentioned benefit amongst all influencers was that breastmilk can support the infant's immune function. Influencers also spoke of how breastfeeding is very beneficial for mother and baby bonding. However, some respondents in the grandmothers/grandmothers-in-law group believed that infant attachment could be problematic and was deemed as detrimental to 'baby boys masculinity'.

When asked about the disadvantages of breastfeeding, all Influencers groups stated that breastmilk quality decreases over time, and cited this as a reason to use formula milk to supplement breastfeeding, or instead of breastfeeding. Influencers spoke of how formula milk is considered more beneficial for the baby and practical for the mother after 6 months, and the return to work was cited as a barrier to continued breastfeeding. The friends' group mentioned that a key disadvantage of breastfeeding is that it is considered incompatible with mothers going back to work, and discussed practical issues such as the difficulty to find time to express breastmilk around a full-time working schedule.

#### **4.2.3 INFLUENCERS VIEWS ON FORMULA MILK**

Influencers stated that the reputation of formula milk companies, and in particular domestic companies, is becoming more positive in China. Whilst respondents from all groups mentioned that the tainted milk scandal had caused marked distrust in Chinese formula, many spoke of how new standards meant that formula was more reliable. Most Influencers felt that moving to formula milk or mixed feeding is an appropriate way to feed infants, especially when the infant is over 12 months old. Respondents mentioned numerous disadvantages associated with breastfeeding, and they believe that supplementing or feeding with formula milk provides a solution to these. The benefits associated with feeding formula milk include convenience, the ease of introducing a routine, and suggested nutritional benefits.

Many of the respondents indicated that the marketing of formula milk products can be excessive, particularly on TV and online. All influencers stated that they are exposed to a high level of formula milk promotions and that it is

common to receive free gifts and samples. Influencers stated that they were more likely to recall an advert for formula milk which featured a celebrity.

## 4.3 Marketing executives

Interviews with 10 Marketing Executives (MEs) explored the formula milk market and marketing in China. MEs held a range of roles in formula milk companies, marketing companies, research, and agencies.

### 4.3.1 CHANNELS OF MARKETING

Marketing Executives spoke of how formula milk marketing is ubiquitous in China. Multiple channels and diverse methods are used to reach and engage target audiences, and to 'convert' women through to buying products. Digital channels are now the primary channel of marketing for many companies, several respondents spoke of how formula milk companies have moved away from 'traditional' types of marketing such as TV and print. The use of digital methods also increased during the COVID-19 pandemic as more people were spending time at home. Digital marketing was generally cited as more effective than traditional methods of advertising as it is thought to be more precise in its targeting, requires less investment, and is seen as more efficient. Furthermore, digital marketing is seen as an effective way of converting through to sales, as consumers receive a link to the company site, or a promotion to push them to buy.

WeChat, TikTok, Little Red Book, and apps such as Baby Tree and are commonly used digital channels of formula milk marketing. Formula milk companies offer free samples, work with influencers to create livestreams and other content, deliver new content such as advice for parents, launch new products and promotions, and invite consumers to offline events through these channels. Most ME's spoke of how WeChat is the most effective marketing tool, particularly when combined with other online and offline methods. WeChat was also cited as a key platform to garner data from potential consumers, and direct them to a site to buy products.

*"The most effective way to reach Chinese consumers? It would be WeChat service accounts... Everybody is using WeChat now. For example, 90 out of 100 moms around us are using WeChat."* (Marketing manager, BJ IDI 4)

MEs spoke of how it is important to reach potential customers in a variety of ways in order to build brand awareness, promote product knowledge, and increase sales. For example, a potential consumer may become more aware of brand through an online video content, read about the products on a maternal app, consult with a health professional about the product, and ask friends for recommendations before 'conversion' to purchasing the product. MEs discussed how formula milk companies often train sales staff in supermarkets and mother and Baby Stories to be 'distributors' who teach mothers about the 'benefits' of their products.

Roadshows, seminars, pop-up stores in shopping malls, and other marketing events are all frequently used by formula milk companies to reach potential consumers. Such events are designed to be appealing to pregnant women and mothers, and include lectures and talks on infant feeding, and fun events such as flower arranging sessions and baby crawling competitions. Free samples and promotional materials are often provided during these events. Lectures are considered a particularly important way of reaching consumers, as women trust 'expert opinions' and this builds the brand credibility.

### 4.3.2 TARGET AUDIENCES FOR FORMULA MILK MARKETING

Several MEs spoke of how marketing begins with pregnant women, and the aim of marketing at this group is to 'activate potential users'. Pregnant women are viewed as an important audience because they have yet to start feeding and may be a captive audience.

MEs emphasised the importance of endorsements from health professionals to build the credibility and desirability of the brand and products. One respondent referred to a HP endorsement as ‘*adding a layer of gold plating*’ to the products. National legislation states that formula milk companies are not allowed to provide free samples to HPs, however formula milk companies reach HPs through educational seminars and training events where they provide training on issues and products. This approach was described as ‘soft recommendations’ where health professionals are encouraged to recommend formula to patients. MEs spoke of how formula milk companies can still communicate directly with HPs in hospitals when engaging about special formula. Furthermore, some respondents spoke of how they engage with HPs confidentially outside of hospitals and encourage them to promote their products to women.

### **4.3.3 MARKETING THEMES AND MESSENGERS**

MEs spoke of how formula milk companies rely on market research to identify the marketing themes for their products, to understand trends, and to identify ways in which to make their products appealing to both women and HPs. Companies use large scale surveys with consumers, feedback from their own sales channels, behavioural analysis, and detailed analysis of big data to explore consumer behaviour, and to develop marketing strategies and themes.

MEs were asked to identify the most appealing marketing messages to Chinese consumers. It was thought that in recent years there had been a shift away from messages which focus on weight gain or brain development, to targeting specific problems for parents, and marketing products as a solution to these problems. For example, products that ‘prevent diarrhoea’ or ‘improve the immunity of infants experiencing allergies’. Several MEs also reported that products that claimed to be ‘better suited to the needs of Chinese babies’ had been extremely successful. Messages that emphasised the origin of the product, and its reliability and quality, were also appealing to consumers. Chinese consumers are usually concerned about the safety of the product (due to the tainted milk scandal), therefore brands place emphasis on their origin to promote the idea of safety and purity.

Key Opinion Leaders (KOLs) and Key Opinion Consumers (KOCs) (otherwise known as influencers) were reported to be important channels of formula milk marketing. KOLs included paediatricians, experts, and Mom influencers. These individuals act as brand representatives, and post about the purported benefits of products and recommend products to others online. Influencers are usually provided with free samples of products to try, or other incentives to discuss the product on their platform, and are urged to recommend products to their followers. Companies also host ‘Moms Clubs’ on WeChat, where they launch parenting contents, new products, and promotions, which is cited as an effective way of gaining followers.

MEs discussed how effective marketing through KOCs and KOLS can be, as it can lead to fast promotion and is relatively cost effective.

***“We can work with either experts or KOL. When they introduce some specialised knowledge or other things, they can mention our products incidentally, or communicate some of the benefits we expect to convey to consumers, this is also an important way for us to promote our products.”*** (Marketing manager, BJ ID1 3)

Promotions are seen as an important tool to reach and engage with potential customers. Formula milk companies offered various discounts and promotions on products including multi-buys, coupons, and free gifts with purchase. Some brands also provided free samples online, to pregnant women attending ANC classes in middle and premium private hospitals, and to customers in supermarkets or Mother and Baby stores.

## 4.4 Yuesaos

Two FGDs with Yuesaos were undertaken, interviews explored Yuesaos reactions to, and suggestions for, campaigns to promote and support breastfeeding. Yuesaos expressed their views on potential campaign messages, and they provided valuable guidance on potential approaches to promote breastfeeding.

### 4.4.1 YUESAO VIEWS ON CAMPAIGNS TO PROMOTE BREASTFEEDING

- Messages must not be vague or generic, women already know breastfeeding is best, they need detailed and targeted understanding of scientific and emotional benefits of breastfeeding.
- Messages must be targeted and scientific (e.g. how breastmilk boosts brain development). Campaigns could demonstrate how breastmilk changes over time to suit baby's need (e.g. from colostrum to 6 months).
- Messages should also focus on the social and psychological benefits of breastfeeding, and influence on child's EQ and IQ and physical/ psychological development.
- Emotional messages are more effective such as a focus on connection with mother, and the benefits for the mother.
- Campaigns should also focus on boosting mothers' confidence to breastfeed and show how persistence is worth it.
- Messages should express the inconvenience of formula feeding compared to breastfeeding (e.g. needs to be at appropriate temperature, sterilised, need time to make the bottles).
- Campaigns could help educate wider society so that breastfeeding is supported, and is not seen as uncivilised.

## 4.5 Summary

Findings from discussions with HPs, Influencers, and MEs provided further insight into the factors which influence women's infant attitudes and decisions. There is a strong support for breastfeeding amongst these groups, yet all groups were also positive about formula milk. Many thought that it was necessary to supplement breastmilk with formula milk as the infant grows older, especially when a woman returns to work. Others felt that breastmilk quality declines, and that formula milk provides additional nutrients.

HPs and influencers spoke of how formula milk marketing is widespread in China. Influencers spoke of frequently seeing advertising for formula milk, and some spoke of receiving free samples. Whilst most HPs stated that there had been a decrease in formula milk advertising within health facilities, and that they had less frequent contact with representatives from formula milk companies, many spoke of how collaborations between formula milk companies and health institutions and professionals are important.

Interviews with MEs revealed that formula milk marketing in China is sophisticated, and uses multiple methods, channels, and messengers to reach and engage women and HPs in China. Marketing on social media is seen as particularly effective, and consumers are influenced by the opinions of influencers and HPs on these channel

## 5.1 Pregnant women and mothers

Marketing Executives (MEs) revealed that pregnant women are a target audience for formula milk marketing, interviews with women echoed this sentiment, and several women stated that marketing was particularly important for pregnant women and first-time mothers. Women spoke of how they think that advertising is more influential on pregnant women because they are seeking information on infant feeding, and may be considering which products to use. Formula milk companies often engage with pregnant women through targeted advertising, and free samples of maternal milks, although uptake of maternal milk is low amongst women.

Pregnant women were very positive about breastfeeding, and the majority want to breastfeed. Findings from the segmentation analysis revealed that pregnant women were more likely to fall into a 'Pro-breastfeeding' group – this group was the most positive towards breastfeeding and most likely to hold negative attitudes towards formula milk and formula feeding. In contrast, mothers were more likely to be in the 'Pro-formula' group and hold positive attitudes towards formula feeding and negative attitudes towards breastfeeding. Whilst pregnant women were very positive about formula, many spoke of their concerns about breastfeeding, such as their worries about having a sufficient supply of breastmilk, and whether the quality of breastmilk will change over time. These doubts are widespread amongst pregnant women, and many spoke of how they plan to bring a tin of formula milk to hospital in case they need to use it.

Doubts around women's ability to breastfeed, and the quality of breastmilk carry through into parenthood. Whilst the majority of women were positive about breastfeeding, many also spoke of their fear around their ability to breastfeed, and discussed how they believe that formula is necessary after 6 months due to the belief it provides added nutrition, or that breastmilk is not adequate.

## 5.2 Beijing and Jinan

Marketing was found to be more pervasive in Jinan, and women in Jinan had a higher level of exposure to marketing. More women in Jinan had seen adverts for formula in elevators and discounts on formula, and they were more likely to utilise discounts for formula milk. Marketing in Beijing appears to be more concentrated online. Findings from the phone diaries revealed that women in Beijing had a higher level of exposure to marketing whilst online shopping. This echoes findings from the interviews with MEs, where respondents spoke of how online marketing is more concentrated in Tier 1 cities.

Survey findings suggest that women in Jinan are more open and engaged with marketing. Segmentation analysis identified a 'Marketing Enthusiast' group who are engaged with formula milk companies and their marketing, and have high brand awareness and exposure to marketing, this group were more likely to be from Jinan. Meanwhile an 'unengaged' group who had low awareness of brands, and low exposure to marketing were more likely to be from Beijing.

Findings from the FGDs and ethnographic interviews revealed that mothers in Beijing are more open to formula, as they are seeking a balance between providing the best for their baby and their self-interests. Mothers from Beijing said that they consider advice from others, however they ultimately follow their own decisions on infant feeding. Mothers in Jinan are more open to breastfeeding, particularly low SES mothers. Here women were more traditional, more influenced by their surrounding people, and trust the opinions of others more.

### 5.3 Mothers and influencers

The majority of women reported that friends and family are their main source of information on infant feeding. Women spoke of how friends are the most influential people on their choice on infant feeding as they felt that mothers with similar experience can better understand their problem and provide valuable suggestions.

All influencer groups spoke of how friends and other mothers are the most influential on women's feeding attitudes and decisions. Whilst interviews with husbands demonstrated that husbands think they play a role in women's infant feeding attitudes and decisions, interviews with women demonstrated that this is not the case. The grandmothers/grandmothers-in-law group spoke of how they offer advice and information on feeding to women, but women rely on friends and other mothers' advice more, as they feel their advice is more relevant and less outdated. Interviews with the friends group confirmed that they provide a lot of guidance and support on infant feeding to their fellow mothers. Yuesaos were also seen to be a very influential group and can play a key role in mothers' infant feeding journey. Women spoke of how they seek advice and support from Yuesaos, and interviews with Yuesaos revealed how they also give women advice and support.

All influencer groups were positive about breastfeeding, and promoted breastfeeding, nevertheless all groups also felt that formula should be introduced to ensure optimum nutrition. Whilst Yuesaos state that they support breastfeeding, some spoke of how women need to use formula, and several spoke of how they recommend formula to women. Women also spoke of how their Yuesao recommended to introduce formula for reasons such as nutrition, or to help the baby gain weight.

### 5.4 Mothers and marketing executives

Interviews with Marketing Executives (MEs) revealed that the formula milk market in China is extremely competitive, and companies use an array of channels and tactics to reach and engage women. The marketing strategies outlined by MEs often reflected how women were exposed to marketing, how they received marketing, and how they viewed formula milk. MEs spoke of how important and prevalent marketing on digital channels is, women recorded high levels of exposure to digital marketing. MEs spoke of how Key Opinion Consumers (KOCs), Key Opinion Leaders (KOLs), and Moms groups are very popular channels of marketing. Moms groups were also regularly mentioned by women as an important source of information on feeding, and for product information and recommendations.

The key marketing messages that MEs spoke of were reflected in women's views of formula milk products. MEs spoke of how companies have been focusing on marketing messages that present formula as 'close to/ equivalent to breastmilk', or 'suitable for Chinese babies', women and HPs often repeated these messages when discussing the benefits of products. MEs also spoke of how companies position formula alongside breastmilk, and imply that formula is necessary, especially at later stages. Many women spoke of how they felt that formula is necessary, especially past the 6-month mark. Overall, findings suggest that the work undertaken by MEs is effective, as many of the approaches they outlined were also discussed and received well by women, and were ultimately influential on women's attitudes and opinions.

## 5.5 Mothers and health professionals

Health professionals (HPs), particularly doctors and paediatricians, were an important influence on women's feeding decisions. Many women also revealed that they chose to breastfeed based on recommendations from HPs and information that they had received in hospital. HPs spoke of how they promoted breastfeeding and encouraged women to persevere with breastfeeding even if they encountered difficulties. HPs stated that they have more contact with pregnant women and new mothers, and therefore are more able to influence their attitudes and behaviours at this time. Many women and HPs spoke of how they have little contact after the infant is born, and this is a key time when more supports for breastfeeding are needed. Women seek HPs advice online or through books, and many spoke of the importance of influencer HPs, such as famous HPs who provide advice on Tik Tok and other channels.

Whilst HPs promote breastfeeding to women, and are usually extremely positive, many also advertently or inadvertently encourage women to switch to formula. Several HPs spoke of how supplementing with formula is necessary, as they perceive that the quantity or quality of breastmilk changes over time, or that formula provides 'added nutrition'. Some women spoke of how HPs had recommended formula to them, or suggested that they will need to switch to formula over time.

## 5.6 Mapping influence

Figure 4 maps the influence of different audiences on women's infant feeding attitudes and decisions, and the channels on which they exert influence. Marketing Executives (MEs) are the most influential group on women's infant feeding attitudes and decisions. MEs influence women across multiple channels including social media, through training classes and events, and the distribution of promotions and gifts. MEs also hold influence on health professionals, especially in relation to products, and training classes and events. MEs hold little influence or contact with husbands, and are influential on Yuesaos across some channels.

Health professionals are also an influential group on women, and exert influence through direct contact, social media, products, training classes and events. Yuesaos have less influence, they are more influential in relation to direct contact and products. Other influencers such as partners, family and friends hold some influence on women's infant feeding attitudes and decisions. Women were found to particularly value the opinion of friends and other mothers, husbands and grandmothers/grandmothers-in-law hold little influence over women's attitudes and decisions. Colleagues are somewhat influential through direct contact with women, and celebrities are influential through the medium of social media and product recommendations.

Figure 5 builds on the Bronfenbrenner ecological systems theory which guides the understanding of the influences on women's formula feeding decisions. Marketing Executives are influential across all systems, they exert influence on the economy, on health professionals and health systems, on partners, family, and friends and then ultimately on women. Health professionals exert influence across the ecosystem, where they influence the wider community and health systems, and at the level of the microsystem and on women. All other groups are influential on women, but do not hold influence on other systems of society.

**FIGURE 4: Heat map of marketing influence**

■ No influence   
 ■ Low influence   
 ■ Medium influence   
 ■ High influence

**THE INFLUENCE OF MARKETING EXPERTS**

	Direct contact	Social media	Products	Training class and events	Promotions and gifts
Mother	High influence	High influence	High influence	High influence	High influence
Health professionals	Medium influence	Low influence	High influence	High influence	Medium influence
Yuesao	No influence	Low influence	Medium influence	No influence	No influence
Husband	No influence	No influence	No influence	No influence	No influence
Influence of Other Influencers	No influence	High influence	Medium influence	No influence	Medium influence

**THE INFLUENCE OF HEALTH PROFESSIONALS**

	Direct contact	Social media	Products	Training class and events	Promotions and gifts
Mother	High influence	Medium influence	Medium influence	High influence	High influence
Yuesao	No influence	Medium influence	No influence	No influence	No influence
Husband	No influence	No influence	No influence	No influence	No influence
Influence of Other Influencers	Low influence	No influence	Low influence	No influence	No influence

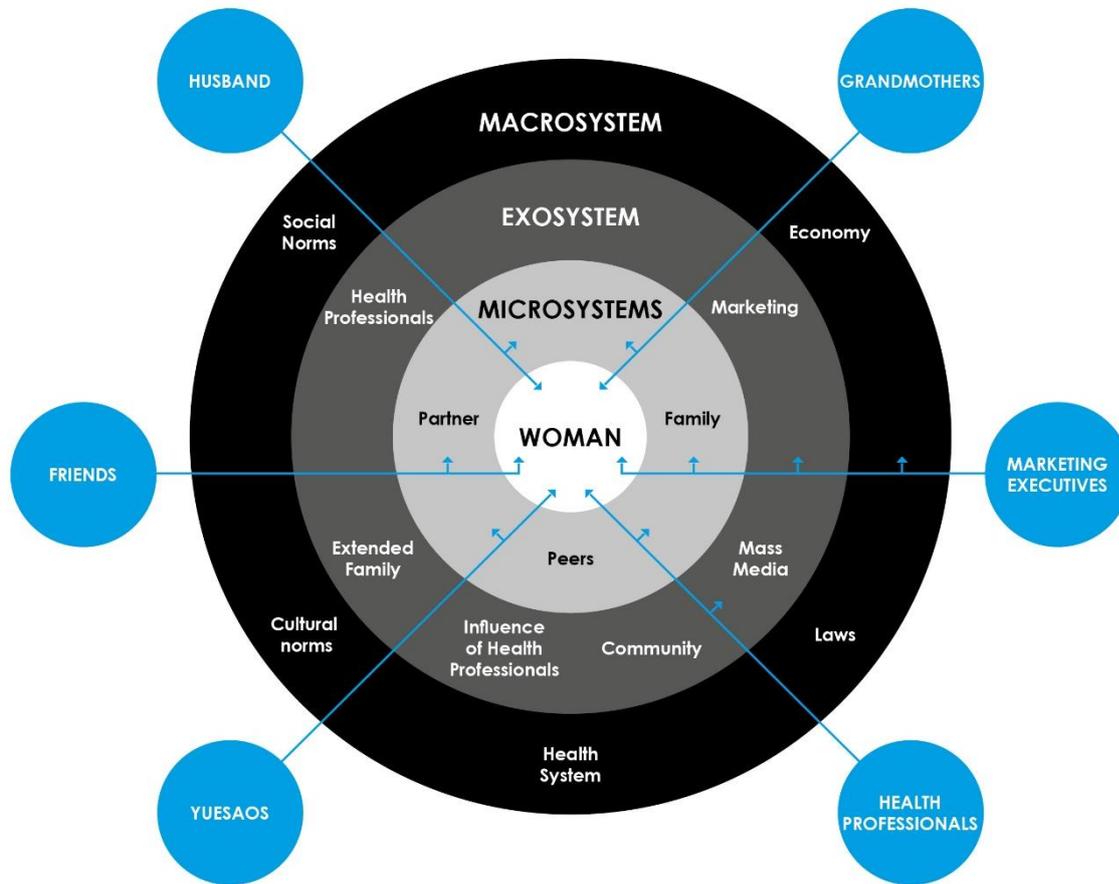
**THE INFLUENCE OF YUESAOS**

	Direct contact	Social media	Products	Training class and events	Promotions and gifts
Mother	High influence	No influence	Medium influence	Low influence	Low influence
Husband	Low influence	No influence	No influence	No influence	No influence
Influence of Other Influencers	No influence	No influence	No influence	No influence	No influence

**INFLUENCE OF OTHER INFLUENCERS**

	Direct contact	Social media	Products	Training class and events	Promotions and gifts
Friends	High influence	High influence	High influence	No influence	Medium influence
Husband	Low influence	No influence	No influence	No influence	No influence
Grandmothers	Low influence	No influence	No influence	No influence	No influence
Colleagues	Medium influence	No influence	Medium influence	No influence	No influence
Celebrities	No influence	High influence	High influence	Medium influence	Medium influence

**FIGURE 5:** Influences on women’s infant feeding attitudes and decisions



This study drew on 9 data collection methods which mapped the marketing of formula milk across Beijing and Jinan. The study sought to document the extent of marketing of formula milk, and its effectiveness, to understand whether it influences the attitudes and behaviours of those subject to it.

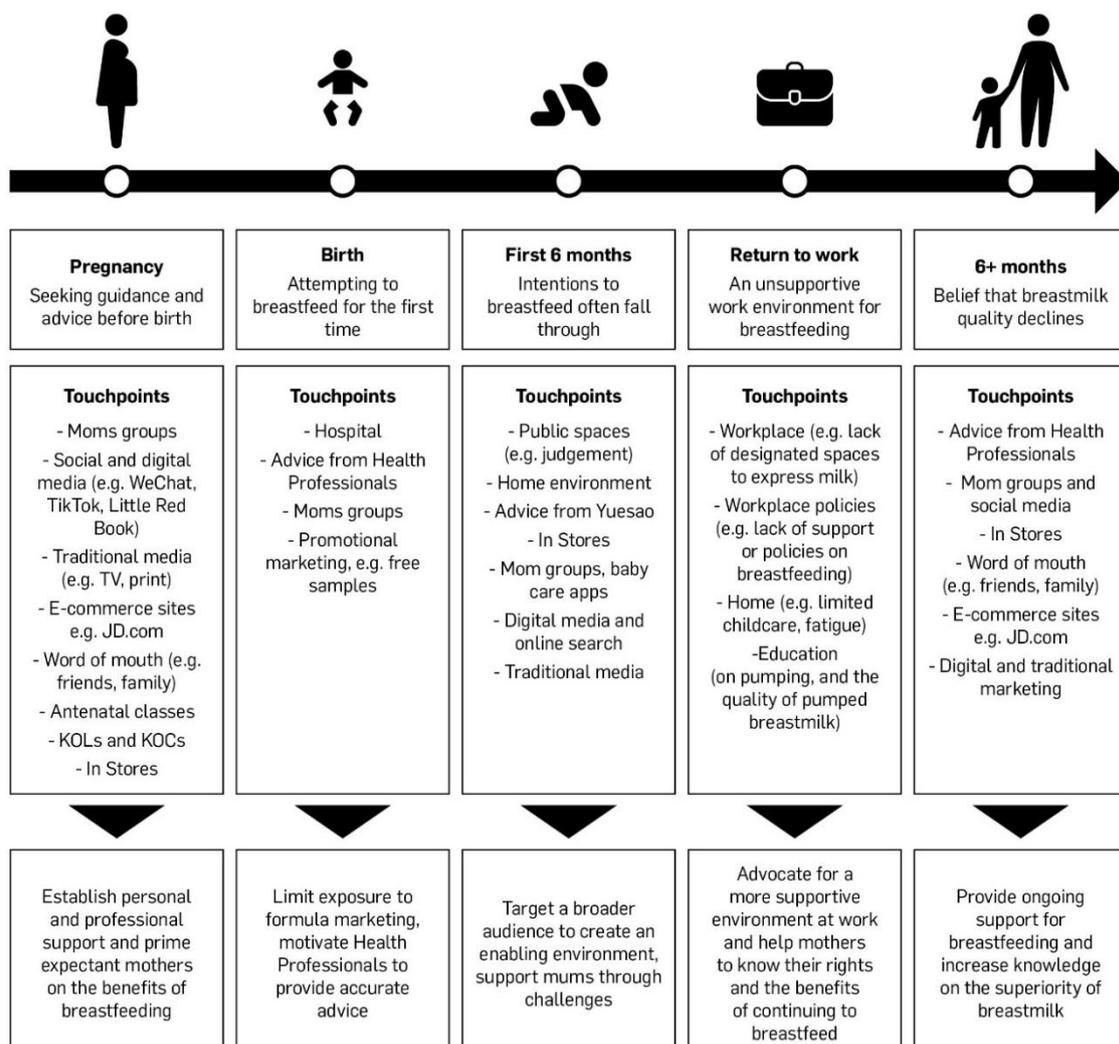
Isolating the effects of marketing and demonstrating its impact on infant feeding practice is difficult. Nevertheless, findings from this study clearly demonstrate that marketing of formula milk is pervasive in China, and exposure to marketing influences attitudes and behaviours of women. Whilst attitudes are positive towards breastfeeding, and the majority of women want to breastfeed, attitudes are also positive towards formula milk. Findings suggest that marketing is also influential on the attitudes and practices of Health Professionals. Whilst all groups included in this study were positive towards breastfeeding, the majority also spoke of how formula should be introduced. All audience groups felt that the quality and quantity of breastmilk declines over time, and that formula provides superior nutrition at this stage. The return to work is also a key time point at which women introduce formula, and findings suggest that more supports for breastfeeding are needed through employers and in the workplace.

Marketing Executives are the most influential group across society on infant feeding attitudes and behaviours, and exert influence across the economy, health systems, and on women's communities. It is clear that more legislation is needed around the marketing of formula milk in China, current legislation is weak and is often circumvented by formula milk companies. The abundance of marketing of formula milk means that mothers often find themselves overwhelmed by information. Identifying the key touchpoints along a parent's breastfeeding journey can help to deliver the right interventions, at the right time. There are a number of key moments in which mothers face exposure to marketing for formula, and often make the decision to, or feel like they have to, switch to feeding formula. Intercepting with communications at these timepoints offers real potential for communications to influence attitudes and optimal breastfeeding behaviours.

A multi-pronged approach is needed to combat myths around breastmilk, and to strengthen supports available to women. Figure 6 provides an overview of the key communication touchpoints, and suggested approaches to protect, promote, and support breastfeeding. Suggested approaches include communication campaigns, education for HPs and women of the benefits of breastfeeding until 2 years, and extended supports for women to breastfeed in the workplace. There is a marked need for education and communications around the wonders of breastmilk, and its benefits at each stage of an infant's life, including beyond 6 months of age. Sticky, salient communications can motivate positive breastfeeding practices and sensitise the audience to prominent misconceptions around formula milk. Findings from interviews with Yuesaos revealed that any campaign or advocacy movement to support breastfeeding must provide targeted information on the benefits of breastfeeding, must encourage women to persevere with breastfeeding, and must engage wider society.

Results also point to a need for extended regulations, and stricter enforcements of current regulations on the marketing of formula milk in China. Formula milk companies are using legal loopholes and innovative tactics to promote formula milk. Pregnant women and mothers can find themselves inundated by formula marketing, on Moms' groups, social platforms, traditional media and even in the hospital. Evidence was also found of marketing of stage 1 formula, free samples of formula, and promotions within some hospitals. Digital marketing in China is rife, and channels such as WeChat Moms groups are often a key source of marketing for formula milk companies. Furthermore Stage 2, 3 and 4 formulas are often promoted in a way that makes it difficult to distinguish from infant formula, which creates further confusion around products and whether there is a need to introduce formula. This suggests that regulation needs to be tightened to ensure that hidden marketing, or marketing of products that position themselves as a substitute to breastmilk is not occurring. Regulators and policymakers should be equipped with the power to impose and enforce stricter regulations around the marketing of formula milk. Furthermore, HPs and other key professionals should be educated on conflict of interests, to ensure that their partnerships with formula milk companies does not inflict on their practices.

**FIGURE 6: Overview of key communication touchpoints**



## 7.1 Appendix A: Methodology

### 7.1.1 WORKSTREAM 1: DESK REVIEW AND MARKETING ANALYSIS

A desk review and marketing analysis was conducted first to inform the themes explored within the primary research and ensure all tools used were appropriate for China.

### 7.1.2 WORKSTREAM 2: RESEARCH WITH PREGNANT WOMEN AND MOTHERS

#### Phone diaries, Focus Group Discussions and Ethnographic Interviews

Twenty mothers and pregnant women completed phone diaries, where they were asked to capture imagery and messaging on any formula milk brands, products and promotions over a one-week period. Diaries were captured daily using a mobile phone application.

A total of 10 FGDs with 40 women were conducted across Beijing and Jinan. FGDs were designed to be interactive involving stimulus collected from the marketing analysis and the phone diaries. Stimulus included TV advertisements, pictures of products and messages from marketing and were used to rank influence, prompt discussion and direct conversation. Product testing was also undertaken to uncover participants' thoughts and feelings toward brands, products, and marketing. These techniques allowed the moderator to explore emotions and aspirations relevant to formula milk and infant feeding practices, central themes appearing in conversations around formula milk, and how marketing messages related to women's perceptions of formula milk. Examples of themes explored in FGDs included questions about exposure to marketing, appeal of marketing, infant feeding intentions and behaviours, key sources of information and channels and platforms used to market formula milk products.

Ten of the diary respondents (all mothers) were invited to participate in an interview to explore their diary entries. While originally intended to be an ethnographic interview including observations of women in their home over a period of half a day, instead 90-minute interviews were undertaken, women were asked questions about the media exposure captured in phone diaries and its impact on their attitudes to formula milk, and questions around infant feeding behaviours and attitudes.

#### Qualitative sample selection and recruitment

Respondents were recruited via convenience sampling methods. For the phone diaries and FGDs, a combination of on-street recruitment and snowball sampling methods (whereby women could recommend a friend to take part) were employed. For ethnographic interviews, 10 of the 20 women who participated in phone diaries were selected.

#### Qualitative sample composition

The survey sample included mothers of infants aged 0-18 months and pregnant women.

**TABLE A1: Workstream 2 qualitative sample women**

METHOD	SAMPLE GROUP	BEIJING	JINAN
<b>Focus Group Discussions with women</b>	Pregnant women	1 (n=4)	1 (n=4)
	Mothers of infant 0-6 months exclusive/predominantly breastfeeding from birth	1 (n=4)	1 (n=4)
	Mothers of infant 0-6 months who started formula from birth	1 (n=4)	1 (n=4)
	Mothers of infant 0-5 months who breastfed and then introduced formula	1 (n=4)	1 (n=4)
	Mothers of infant 6-18 months who breastfed and then introduced formula 6-18 months	1 (n=4)	1 (n=4)
<b>Diary</b>	Pregnant women and mothers	10	10
<b>Interviews with mothers</b>	Mothers (completed diary module)	5	5

**Qualitative implementation**

All fieldwork was conducted by the local partner in China (MindsLab) and overseen by M&C Saatchi World Services and 2 local Quality Assurance managers. A member of the M&C Saatchi World Services research team attended FGDs, In-Depth interviews with HPs, and ethnographic interviews. Simultaneous translation took place to allow the researcher to learn in real-time and adapt the research tools to pursue new thematic avenues, as necessary. All data collection tools were developed by M&C Saatchi World Services and translated into simplified Chinese, all tools were pretested, piloted, and adapted, as necessary. All qualitative data collection was audio recorded, transcribed, and checked for accuracy.

**Qualitative analysis**

A framework approach was taken to thematically analyse the qualitative data. This allowed for in-depth analysis of key themes across the whole data set while the views of each participant remained in context of their overall account. Framework matrices were generated to explore connections between participant groups and across the whole dataset. An initial deductive approach was taken with themes pre-selected based on the outlined research questions.

**Quantitative implementation**

The survey was conducted via an online interview using tablet assisted software. Once the final design of the survey was complete it was scripted using CAPI software. In-field interviewers were trained by CIP Marketing Research, local Quality Assurance Managers and M&C Saatchi. The survey was piloted with 100 respondents. All data was checked and cleaned by the M&C Saatchi World Services research team. Survey interviews were then spot-checked by a local Quality Assurance Manager.

**Survey sample selection and recruitment**

Research sites were selected by identifying suburbs that were representative of Social Economic Status (SES) groups. These suburbs were selected based on sufficient population density and demographic variance required to fulfil the sampling criteria. Survey participants were recruited using convenience methods and street-based recruitment.

### 7.1.3 WORKSTREAM 3: RESEARCH WITH INFLUENCERS

Workstream 3 investigated the attitudes and perception of individuals that may influence women’s infant feeding decisions. It was intended to identify the pressures and influences that women face by her peers within society, and to understand how these pressures and influences feed into her final decision. Workstream 3 was comprised of:

- **FGDs with Influencers**
- **In-depth-interviews with Health Professionals**
- **In-depth interviews with Marketing Executives**
- **FGDs with Yuesaos**

These FGDs were a 90-minute exercise with 4 participants per group. They were designed to examine peer-to-peer and other types of word-of-mouth promotion to understand the narratives around formula milk that feature in a woman’s life. The in-depth interviews consisted of 45-minute individual interviews, designed to understand the perceptions of health professionals on infant feeding practices, as well as their interactions with, and influences from, formula milk-related companies.

#### Sample selection and recruitment

Participants for Influencer FGDs were recruited through convenience and snowball sampling methods after being pre-identified by participants of the FGDs with women or ethnographic interviews. Health professionals were recruited using a database of health professionals, and through ‘snowball’ referral sampling, where a respondent, another health professional, or contact of the agency recommended a health professional for interview.

#### Sample composition

20 in-depth interviews with 3 Influencer FGDs were conducted in total, with 12 participants overall consisting of partners, family, community members and friends of mothers and pregnant women.

**TABLE A2: Qualitative sample influencers**

METHOD	SAMPLE GROUP	BEIJING	JINAN
<b>In-depth interviews with health professionals</b>	Paediatricians - private hospitals	2	2
	Nurses - private hospitals	1	2
	Obstetricians – private hospitals	3	1
	Paediatricians – public hospitals	2	2
	Nurses - public hospitals	1	1
	Obstetricians – public hospitals	1	2
<b>FGDs with influencers</b>	Partners	1 (n=4)	
	Grandmothers/mothers-in-Law	1 (n=4)	
	Friends	1 (n=4)	
<b>Marketing Executives</b>	Agency Director - Marketing company		1
	General Manager - Marketing company		1
	Brand Manager – formula milk company		1
	Marketing Manager – formula milk company		1
	Strategy Director – Advertising agency		1
	Ad Planning Manager – Advertising agency		1

	Media Planning Director – Advertising agency	1
	Planning Director – Advertising agency	1
	Program Director – Strategy consulting company	1
	Research Manager – Market research agency	1
<b>FGDs with Yuesaos</b>	Medium level experience Yuesaos	1 (n=3)
	High level experience Yuesaos	1 (n=3)

### Qualitative implementation

Similar to Workstream 2, a member of the M&C Saatchi World Services research team watched some FGDs and in-depth interviews with health professionals. Simultaneous translation took place in these groups. FGDs and IDs were carried out in Chinese, with a local translator present. Transcripts were then subsequently translated to English for analysis.

### Qualitative Analysis

Qualitative analysis for Workstream 3 was carried out in conjunction with analysis for Workstream 2 and followed identical procedures. All coding was conducted using framework matrices which was generated to explore connections between participant groups and across the whole dataset.

### Quantitative sample composition

**TABLE A3: Survey sample**

CATEGORY OF WOMEN	AGE OF INFANT	SES	BEIJING	JINAN	TOTALS
<b>Pregnant: First child</b>	N/A	Low	25	25	<b>50</b>
		Medium	25	25	<b>50</b>
		High	25	25	<b>50</b>
<b>Pregnant: Subsequent child</b>	N/A	Low	25	25	<b>50</b>
		Medium	25	25	<b>50</b>
		High	25	25	<b>50</b>
<b>Breastfeeding Sample</b>	0-12 months	Low	25	25	<b>50</b>
		Medium	25	25	<b>50</b>
		High	25	25	<b>50</b>
<b>Women who feed their infants formula milk products</b>	0-3 months	Low	25	25	<b>50</b>
		Medium	25	25	<b>50</b>
		High	25	25	<b>50</b>
	4-6 months	Low	25	25	<b>50</b>
		Medium	25	25	<b>50</b>
		High	25	25	<b>50</b>
	7-12 months	Low	25	25	<b>50</b>
		Medium	25	25	<b>50</b>
		High	25	25	<b>50</b>
	13-18 months	Low	25	25	<b>50</b>
		Medium	25	25	<b>50</b>
		High	25	25	<b>50</b>
<b>Total</b>			<b>525</b>	<b>525</b>	<b>1050</b>

### Survey Sample Composition

Women were pre-selected based on their infant feeding behaviours, therefore, it is not possible to calculate incidence of behaviours. Quotas of feeding intentions were not applied to pregnant women, the majority of whom (76%) intended to exclusively breastfeed their infant. In total 20% of the mothers sample exclusively breastfed, 2.8% had exclusively formula fed from birth, 38% were feeding both breastmilk and formula, and 9.2% had breastfed but were now feeding formula.

### 7.1.4 ETHICS

The study was granted ethical approval by the World Health Organization Research Ethics Review Committee (WHO ERC) in August 2019, and the Capital Institute of Paediatrics in April 2020.

## 7.2 Appendix B: measuring exposure to marketing

TABLE B1: Marketing exposure score calculation

SCORING SYSTEM	EXAMPLE	SCORE
1. SCORED ONE POINT FOR EACH MEDIA CHANNEL ON WHICH THEY SAW/HEARD ADVERTISING FOR FORMULA, OR '0' IF THEY DIDN'T SEE ANY ADVERTISING (Q50 &61)	YES, SAW ADS ON 3 CHANNELS – TV, BILLBOARD AND YOUTUBE	3
2. ANY CONTACT FROM FORMULA COMPANY, SCORED ONE FOR EACH TYPE Q56	NONE	0
3. ANY FREE SAMPLES OF formula milk RECEIVED, SCORED ONE – Q56	YES	1
4.ANY OTHER FREE GIFTS FROM formula milk COMPANIES, SCORED ONE – Q56	YES	1
5.ANY ACTIVE ENGAGEMENT WITH FORMULA COMPANY, SCORED ONE FOR EACH TYPE -Q57	REGISTER FOR A BABY CLUB RUN BY FORMULA COMPANY	2
<b>OVERALL SCORE</b>		<b>7</b>

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