HOW THE MARKETING OF FORMULA MILK INFLUENCES OUR DECISIONS ON INFANT FEEDING

World Health Organization

unicef
for every child

How the marketing of formula milk influences our decisions on infant feeding

The impact of marketing of breast-milk substitutes on infant feeding decisions and practices: report of a multi-country research study commissioned by the World Health Organization and the United Nations Children's Fund.

Summary of findings and opportunities for action.

How the marketing of formula milk influences our decisions on infant feeding

ISBN (WHO) 978-92-4-004460-9 (electronic version)
ISBN (WHO) 978-92-4-004461-6 (print version)

© World Health Organization and the United Nations Children's Fund (UNICEF), 2022

This joint report reflects the activities of the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF)
Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; https://creativecommons.org/licenses/by-nc-sa/3.0/igo).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO or UNICEF endorses any specific organization, products or services. The unauthorized use of the WHO or UNICEF names or logos is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO) or the United Nations Children's Fund (UNICEF). Neither WHO nor UNICEF are responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization (http://www.wipo.int/amc/en/mediation/rules).

Suggested citation. How the marketing of formula milk influences our decisions on infant feeding. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2022. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

Sales, rights and licensing. To purchase WHO publications, see http://apps.who.int/bookorders. To submit requests for commercial use and queries on rights and licensing, see http://www.who.int/copyright.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

UNICEF and WHO Photographs. UNICEF and WHO photographs are copyrighted and are not to be reproduced in any medium without obtaining prior written permission. Permissions may be granted for one-time use in a context that accurately represents the real situation and identity of all human beings depicted. UNICEF and WHO photographs are not to be used in any commercial context; content may not be digitally altered to change meaning or context; assets may not be archived by any non-WHO or non-UNICEF entity. Requests for permission to reproduce UNICEF photographs should be addressed to UNICEF, Division of Communication, 3 United Nations Plaza, New York 10017, USA (email: nyhqdoc.permit@unicef.org). Requests for permission to reproduce WHO photographs should be addressed to: http://www.who.int/copyright

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO or UNICEF concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO or UNICEF in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

The figures included in this report have been estimated by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (www.washdata.org) to ensure compatibility; thus, they are not necessarily the official statistics of the concerned country, area or territory, which may use alternative methods.

All reasonable precautions have been taken by WHO and UNICEF to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO or UNICEF be liable for damages arising from its use.

Report layout and design: Rooftop

In Memoriam

This report is dedicated to Dr Peter Salama (1968–2020), an inspiring leader who actively supported this research and the use of evidence to improve the health, nutrition and rights of children and women.

Contents

Preface	vi
Foreword	vii
Acknowledgements	viii
Glossary	ix
Executive summary	x
Introduction	1
1. Marketing channels and tactics: pervasive and invasive	4
2. Marketing messages: slick and misleading	8
3. Health professionals: personal access, trusted role	12
4. Women's experiences, women's voices	14
5. Opportunities for action	17
References	20

From the moment you tell the world you are having a baby
and start looking for information online
You're on the radar of formula milk marketing executives
They're logging you on their future sales spreadsheet
Thinking up ways to take advantage of your fears and insecurities
You have a target on your back
Nothing will stop them from reaching you
And it's not just one formula milk company
It's all of them
Spinning the truth about what's in their products
Hiding behind people you trust online and in health care settings
Showing up wherever you turn for advice
Piling on pressure to buy their products
At a time when what you really need
Is some time to yourself
To just be

Foreword

As societies, we are failing to protect our children from the marketing of products that undermine their health and development. One of the most egregious examples of this is the aggressive promotion of commercial milk formula for babies and young children.

As detailed in this report, formula milk marketing – powered by enormous budgets and the deliberate misuse of science – is driving over-consumption of formula milk and discouraging breastfeeding. It is also undermining women's confidence and cynically exploiting parents' instinct to do the best for their children.

The consequences for children and families are significant. Consumption of milk formula can adversely affect children's health, growth and development. It also incurs significant costs for families who can ill afford it.

Let us be clear: breastfeeding is the best possible source of nutrition for babies. Decades of research continue to reveal its incredible properties for growth, preventing infections, bonding, and brain development. Breastfeeding also supports the health of mothers.

Formula milk has its place for women and parents who are not able or do not want to breastfeed, often the result of other factors – such as employment - that are not supportive of breastfeeding.

The International Code of Marketing of Breast-milk Substitutes is a landmark public health agreement passed by the World Health Assembly in 1981. Yet exploitative marketing practices continue in defiance of the Code. Digital media have been used to further amplify the reach and impact of marketing of formula milk. Even during the COVID-19 pandemic, companies continue to prey on parents' fears to increase sales of milk formula.

This report clearly lays out the issues at stake and points to the actions needed to protect children and families, from robust domestic legislation, to responding to digital marketing practices, to highlighting the need for broader investments in breastfeeding.

We owe it to our children to ensure that women and families are protected from unethical marketing practices and are equipped with accurate information and support.

Dr Tedros Adhanom Ghebreysus
Director-General
World Health Organization

Henrietta H. Fore
Executive Director
United Nations Children's Fund

Acknowledgements

This report summarizes the findings of a multi-country study examining the impact of breast milk marketing on infant feeding decisions and practices, which was commissioned by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). The research was conducted in eight countries. WHO commissioned and coordinated the study in Bangladesh, Mexico, Morocco, Nigeria, South Africa, the United Kingdom of Great Britain and Northern Ireland and Viet Nam; UNICEF commissioned and coordinated the study in China.

The research protocol for the *Multi-country study examining the impact of Breast-milk Substitutes (BMS) marketing on infant feeding decisions and practices* was designed and implemented by M&C Saatchi World Services – a specialist research division within M&C Saatchi, one of the world's largest communication networks. M&C Saatchi World Services analysed all data and drafted a report for WHO and UNICEF that presented the findings and conclusions. Gillian Kingston and Gerry Power coordinated the work in M&C Saatchi World Services and authored the main report with additional contributions from Natalie Maplethorpe, Mike Spencer, Lorry Symington, Hollie Jones and Katy Walsh Gilbert. The M&C Saatchi World Services research report, including the methods and results, is currently in press.

This report was prepared by the Department of Maternal, Newborn, Child and Adolescent Health and Ageing and the Department of Nutrition and Food Safety. It draws on findings and text from the M&C Saatchi World Services research report. With the exception of China, the research was led by Nigel Rollins with technical support from Laurence Grummer-Strawn. Additional inputs were provided by Anshu Banerjee, Marcus Stahlhofer and Nina Chad. In China, the research was led by Anuradha Narayan (UNICEF) and Suying Chang (UNICEF).

Anna Gruending drafted the report.

The support of WHO and UNICEF staff in country and regional offices was essential for implementation of the research and dissemination of findings: Ayoub Al-Jawaldeh, Betzabe Butron Riveros, Sithembile Dlamini-Nqeketo, Hafid Hachri, Miguel Malo, Adelheid Onyango, Pham Thi Quynh Nga, Faria Shabnam, Angela de Silva, Joy Ufere, Julia Untoro, Eliette Valladares, Kremlin Wickramasinghe.

Academics, local experts and representatives from the Ministries of Health in the study countries provided additional guidance and support: Bangladesh - Muttaquina Hossain, Tahmeed Ahmed and Rukhsana Haider; China - Shuyi Zhang; Mexico - Sonia Hernández and Mireya Vilar-Comte; Morocco - Laila El Ammari, Amina Barakat and Mohammed Ababou; Nigeria - Nadia Sam-Agudu; South Africa - Yogan Pillay, Lesley Bamford, Tanya Doherty, Silondile Luthuli, Christiane Horwood and Catherine Pereira-Kotze; United Kingdom - David McCoy, Lynne McFetridge and Stephen Turner; Viet Nam - Roger Mathisen and Nguyen Thanh Tuan.

An international study advisory group provided guidance in the design and oversight of the study: Professor Gerard Hastings (Professor Emeritus, University of Stirling, United Kingdom); Dr Purnima Menon (International Food Policy Research Institute, Delhi, India); Professor Rafael Pérez- Escamilla (Yale School of Public Health, Connecticut, United States of America); Professor Linda Richter (University of the Witwatersrand, Johannesburg, South Africa); and Professor Cesar Victora (Federal University of Pelotas, Rio Grande do Sul, Brazil).

Research ethics approvals were granted by: International Centre for Diarrhoeal Disease Research, Bangladesh; Instituto Nacional de Salud Publica, Mexico; Université Mohammed Vde Rabat, Morocco; National Health Research Ethics Committee of Nigeria, Nigeria; Human Sciences Research Council, South Africa; Queen Mary University of London, United Kingdom; Center for Creative Initiatives in Health and Population, Viet Nam; WHO Ethics Review Committee.

WHO gratefully acknowledges the Bill & Melinda Gates Foundation for providing funds to support the research.

Glossary

Baby-friendly Hospital Initiative (BFHI) A global effort by UNICEF and WHO to implement practices that protect, promote, and support breastfeeding in health facilities.

Breast-milk Substitutes (BMS) Breast-milk substitutes include any food or milk that is marketed as partially or fully replacing breast milk.

Cross-promotion Refers to the use of promotional activities for one product to additionally promote another product. This can include packaging, branding, and labelling of one product to closely resemble that of another.

DHA Docosahexaenoic acid – an omega-3 fatty acid present in breast milk.

Exclusive Breastfeeding Feeding an infant only breast milk and no other liquids or solids, not even water, with the exception of drops or syrups consisting of vitamins, mineral supplements or medicines.

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

Follow-on Formula Artificial ultra-processed products for infants made out of a variety of products, including animal milks, soybean and vegetable oils and promoted as suitable for use as a partial or total replacement for breast milk in the diet of an infant from the age of 6 months; also referred to as stage 2 formula.

Formula Milk Artificial ultra-processed products for infants made from a variety of products, including animal milks, soybean and vegetable oils and promoted as part of a line of products that includes infant formula, follow-on formula, and/or toddler/growing-up products (see stages 1–4 formula below), and may include formula products for special medical purposes.

Formula Milk Companies Companies that manufacture, promote, and sell formula products.

Growing-up Milk Modified animal milk-based or animal milk substitute-based product that usually shares a brand identity with an infant formula product and is promoted as suitable for use as a partial or total replacement for breast milk in the diet of a child. Growing- up milks can vary in the age of child the product is targeted towards, usually from 12 months upwards.

HMO Human milk oligosaccharides, different types of sugars that are present naturally in breast milk (human milk). HMOs influence the type of bacteria normally found in the gut and are important for a healthy gut.

Infant Child aged 0 up to 12 months.

Infant Formula refers to formula products intended for infants 0–6 months of age during which time exclusive breastfeeding is normally recommended; also referred to as stage 1 or standard formula.

Influencer A person with the ability to influence potential buyers of a product or service by promoting or recommending the items on social media.

Marketing Defined as advertising, selling and delivering of products to consumers, non-consumers and through providers.

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

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

Reflux When an infant brings up or regurgitates milk during or shortly after feeding.

Social Media Popular social media platforms, including Facebook, Instagram, Twitter, WeChat, TikTok, Little Red Book.

Specialized Milks and Comfort Milks include formula products that can be promoted for specific medical conditions, e.g. lactose intolerance or allergy. Additionally, there are products marketed as comfort milks to address specific infant behaviours such as fussiness, poor sleep or hungry, where the formulation of the milks has been modified, for example the balance of whey or casein protein.

Stage 1 Formula usually for infants aged 0–6 months, but can be marketed for older infants; typically referred to as infant or standard formula.

Stage 2 Formula usually for infants aged 6–12 months, but can be marketed for older infants; also referred to as follow-on formula.

Stage 3 Formula usually for children aged 12–24 months, but can be marketed for younger or older infants; also referred to as toddler formula.

Stage 4 Formula usually for children aged 3 years and up, but can be marketed for younger infants; also referred to as growing-up formula.

Toddler Formula Modified animal milk or animal milk substitute-based product that shares a brand identity with an infant formula product and is promoted as suitable for use as a partial or total replacement for breast milk in the diet of an infant from 12 months old. Toddler milks can vary in age and promotion but are usually stage 3 formula milks aimed at children from 1 to 2 years old.

UNICEF United Nations Children's Fund

Wechat is a Chinese multi-purpose messaging, social media, and mobile payment app.

WHO World Health Organization.

Executive summary

Marketing is part of everyday life, experienced by virtually everyone. However, marketing of formula milk products is different from the marketing of everyday items such as shampoo, shoes, or fridges. Feeding practices of children in the first 3 years of life profoundly affect their survival, health and development throughout their lives. Deciding how we feed our infants and children should therefore be based on the very best information and truthful evidence, influenced only by what is best for the child and parents and free of commercial interests.

In 1981, the Thirty-fourth World Health Assembly adopted the International Code of Marketing of Breast-milk Substitutes (the Code) to regulate the marketing of breast-milk substitutes. Forty years on, formula milk marketing still represents one of the most underappreciated risks to infants' and children's health. Scaling up breastfeeding could prevent an estimated 800 000 deaths of children under 5 and 20 000 breast cancer deaths among mothers each year. Despite the Code and subsequent relevant World Health Assembly resolutions, formula milk companies continue to put sales and shareholder interests before infant and population health.

This report draws insights from a large study, commissioned by the World Health Organization and the United Nations Children's Fund, conducted over the course of two years. The study sought to hear directly from women and those who influence them – health professionals, partners, family members and friends – about their exposure to and experience of formula milk marketing. Eight countries were included – Bangladesh, China, Mexico, Morocco, Nigeria, South Africa, the United Kingdom of Great Britain and Northern Ireland, and Viet Nam – representative of countries in their regions yet diverse in their income levels, exclusive breastfeeding rates, and implementation of the Code. The study was conducted in urban populations where trends and values about infant feeding practices are established and spread to other communities.

What emerges from this research is the most complete picture to date of mothers' and health professionals' experiences of formula milk marketing – and it is deeply troubling.

Key Findings

1. **Formula milk marketing is pervasive, personalized, and powerful.** Across all the countries studied, formula milk companies use a range of tactics to engage women through online and offline channels and platforms. Digital marketing provides a rich stream of personal data which is used by companies to refine and optimize marketing strategies.
2. **Formula milk companies use manipulative marketing tactics that exploit parents' anxieties and aspirations.** Industry claims its products can solve common infant problems, it positions itself as a trusted friend and advisor, it appeals to parents' aspirations for their children, and it plays on parents' anxieties and self-doubts. Companies have even played on parents' fears during the COVID-19 pandemic to sow doubt and enhance sales.
3. **Formula milk companies distort science and medicine to legitimize their claims and push their product.** They make false and incomplete scientific claims and position formula as close to, equivalent or superior to breast milk despite growing evidence that breast milk and breastfeeding have unique properties that cannot be replicated by artificial formula.
4. **Industry systematically targets health professionals – whose recommendations are influential – to encourage them to promote formula milk products.** Sponsorship, incentives and training activities are used – either directly or through their institutions – to build relationships and influence health workers' practices and recommendations.
5. **Formula milk marketing undermines parents' confidence in breastfeeding.** Many women express the desire to breastfeed, but a sustained flow of strategic and persuasive marketing messages undermines their confidence. Women's positive attitudes towards formula milk correlate with their exposure to marketing, and the fears and doubts they express about breastfeeding often mirror the themes and messaging of marketing.
6. **Counter-measures can be effective, but must be comprehensively expanded and scaled up.** Governments, health professionals and their associations, civil society, and many other actors can immediately take meaningful actions to end unethical marketing of formula products and to support women, parents and caregivers in their infant feeding practices.

This research shows that formula milk marketing knows no limits. It misuses and distorts information to influence decisions and practices. The consequences for the health and human rights of women and children are not new but often overlooked.

The need for society and governments to call out the unethical nature of formula milk marketing to a much broader audience, and to take decisive action to end this marketing and increase support to mothers and families is long overdue. Doing so will inevitably unnerve the vested interests of this US$ 55 billion industry and the shareholders and stakeholders who benefit from increasing sales.

Below are some of the immediate and tangible opportunities for action that governments, health professionals and their associations, civil society and individuals can and should take.

Opportunities for Action

1. **Recognize the scale and urgency of the problem.** Political leaders at the highest level, public health institutions, health professionals and their associations, and civil society should fully recognize and expose the pervasive and invasive nature of formula milk marketing, and the harm it causes for child and maternal health and human rights, for societies, for economies, and for the environment.

2. **Legislate, regulate, enforce.** Countries should urgently adopt or strengthen comprehensive national mechanisms to prevent formula milk marketing, including:
   - domestic legislation – health, trade and labour – in line with the Code, closing all loopholes;
   - robust enforcement and accountability mechanisms, including holding formula milk companies accountable for their practices and commitments;
   - regulatory measures, including plain packaging for formula products and higher standards of evidence for product development;
   - programmatic initiatives, such as strengthening and expanding the Baby-friendly Hospital Initiative (BFHI).

3. **Protect the integrity of science and medicine.** Health professionals and their associations should adopt, publicize and implement strong conflict-of-interest policies to impede corporate interests from influencing critical health guidance and training on infant and young child feeding; and governments should invest in training and building the skills of health professionals in this area. Health professionals and governments should actively counter commercially-driven messages on infant feeding and provide accurate, impartial information to women and parents.

4. **Safeguard children's health on digital platforms.** The entire digital ecosystem – including data capture, data brokering and content dissemination – should be comprehensively reviewed using a public health lens, and governments and international authorities should develop enforceable regulations that protect child health and development from harmful commercial marketing.

5. **Invest in mothers and families, divest from formula milk companies.** Countries, donors, and investors should scale up investments in wide-ranging measures to support mothers and families, including support for breastfeeding and health systems, and maternity and parental leave, and divest from companies that exploit families through unethical marketing of formula milk products.

6. **Expand coalitions to drive action.** Stopping unethical formula marketing needs actions across society – not just those groups and individuals involved in infant feeding or child health. Marketing of formula is emblematic of marketing of other products such as tobacco or gambling that prioritize sales over health and well-being. Coalitions are needed to challenge commercially-driven practices and demand action and accountability.

The evidence is strong. Formula milk marketing, not the product itself, disrupts informed decision-making and undermines breastfeeding and child health. All sectors of governments, including health, labour and trade, health professionals and their associations, investors and those with economic leverage should fulfil their responsibilities and exert their influence to insist on practices that prioritize children and families over commercial interests.

Society is not a bystander – everyone must protect the environment in which women and parents feed their infants and demand the appropriate care, support and protection of rights. The research findings reveal the priorities of formula milk companies and how far they are prepared to go to achieve their sales and market growth. In response, we must be clear about the type of world that we stand for; what is ethical and acceptable; and where concern for our children and their futures guide and prioritize our actions today.

The evidence is strong. Formula milk marketing, not the product itself, disrupts informed decision-making and undermines breastfeeding and child health.

Introduction

Marketing is part of everyday life, experienced by virtually everyone. However, marketing of formula milk products is different because feeding practices in the first 3 years of life profoundly affect the survival, health and development of children both immediately and throughout their lives. Deciding how we feed our infants and children should therefore be based on the very best information and evidence, influenced only by what is best for the child and parents and certainly not commercial interests.

Forty years ago, the Thirty Fourth World Health Assembly adopted the International Code of Marketing of Breast-milk Substitutes *(1)* (the Code) to regulate the marketing of breast-milk substitutes. The Code was adopted in response to aggressive marketing promoting formula feeding, leading to significant increases in infant and child deaths *(2)*. Subsequent relevant World Health Assembly resolutions have refined and expanded the scope of the Code.

Forty years on, formula milk marketing still represents one of the most underappreciated risks to infants' and young children's health. The World Health Organization (WHO) recommends early initiation of breastfeeding within the first hour of life, exclusive breastfeeding during the first 6 months of life, and breastfeeding with complementary feeding up to 2 years or beyond *(3)*. Scaling up breastfeeding could prevent an estimated 800 000 deaths of children under 5 years as well as 20 000 breast cancer deaths among women each year *(4)*. Despite the Code and subsequent relevant resolutions, formula milk companies continue to put sales and shareholder interests before infant and population health. While many of their marketing tactics are bold and overt, in the digital age, they have also become more subtle and sophisticated. Global rates of breastfeeding, particularly exclusive breastfeeding, have improved modestly over the past 20 years. However, sales of formula milk have almost doubled in roughly the same period and reached US$ 55.6 billion in 2019 *(5)*, with high year-on-year growth even during the economic crisis of 2008–2009 *(6)* (Figure 1).

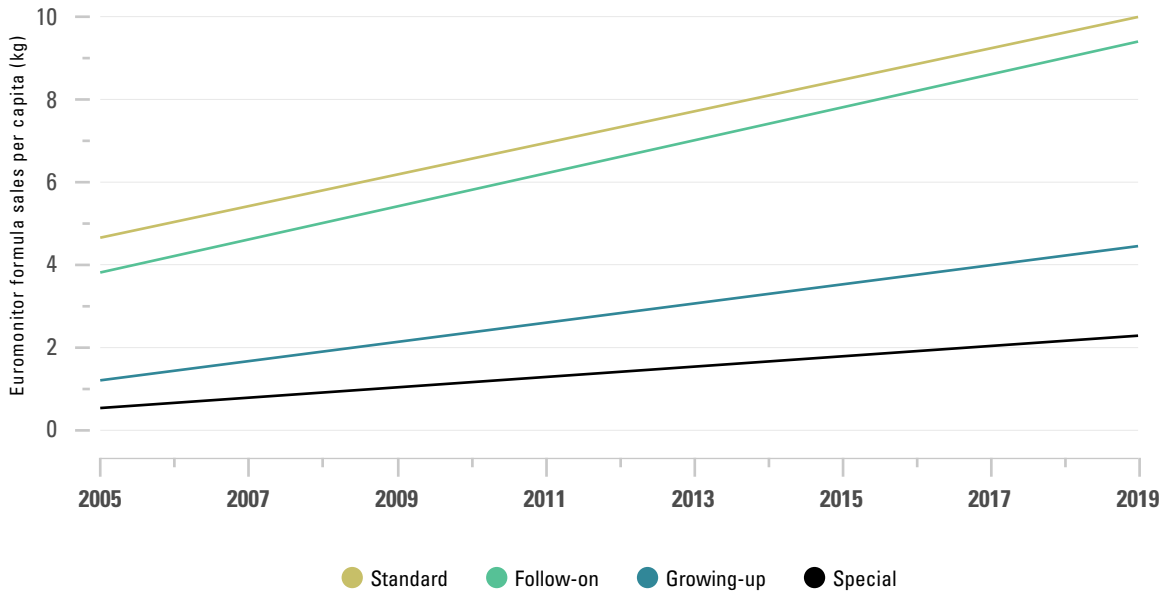


Figure 1. **Sales of commercial milk formulas per capita (for ages 0–36 months), 2005–2019**
Source: Euromonitor international; packaged food industry edition 2019 (190 countries)

Marketing works. Multiple studies have shown marketing's ability to increase demand and consumption, including

for unhealthy products such as tobacco, alcohol and ultra-processed foods *(7–10)*. Industry expenditure on marketing – estimated to be between 5–10% of annual turnover – similarly reflects that confidence. Much has been written about how formula milk marketing continues to be a substantial global barrier to breastfeeding *(10–12)*. Despite the rapid growth of the formula milk industry, its sophisticated and evolving tactics – and how they are experienced by women and health professionals – have not been examined on a global scale previously.

This report begins to fill that gap. It draws insights from a large study commissioned by WHO the United Nations Children's Fund (UNICEF), conducted between August 2019 and April 2021 by a specialist research team with communication and behaviour change expertise. The study sought to hear directly from women and those who influence them – health professionals, partners, family members and friends – about their exposure to and experience of formula marketing. It was conducted in eight countries – Bangladesh, China, Mexico, Morocco, Nigeria, South Africa, the United Kingdom of Great Britain and Northern Ireland, and Viet Nam – selected as representative of countries in their regions but diverse in their income levels, exclusive breastfeeding rates, and implementation of the Code (Figure 2). Women and health professionals in major cities in each country were interviewed as it is here that trends and values about infant feeding practices are established and spread to other communities.

This study was novel in its scope and approach, using nine data collection methods and applying consumer-focused methodologies and marketing analysis frameworks that are seldom used in public health research.

Study methods, including the sampling strategy, were designed by a team with communication and behaviour change expertise as used in commercial marketing with the aim of collecting data and insights as if to inform development of a commercial marketing plan. Study participants and data collected were not intended to be representative of national populations but were sampled from groups considered to be trendsetters, who would diffuse messages and practices to a wider population. A comprehensive marketing analysis was conducted in each country in advance to assess the volume and dynamics of formula milk marketing and to map various types of advertisements, messengers, content and forms of dissemination. This information informed the design of focus group discussions and ethnographic interviews, and the terminology used in surveys. Over 8500 pregnant women and mothers of young children (aged 0–18 months) and 300 health professionals were surveyed, and more than 100 focus group discussions and 80 in-depth interviews were conducted.[1] An unusual feature of this research was a sub-set of in-depth interviews with marketing executives in China, providing insight into the mindset and evolving tactics of formula milk companies.

Women's attitudes and practices around infant feeding are shaped by multiple factors including formal and informal work environments, health systems' support, maternity protection, preference, and societal norms and values. While recognizing the critical importance of these factors, this research focused on the scale, nature and impact of formula milk marketing.

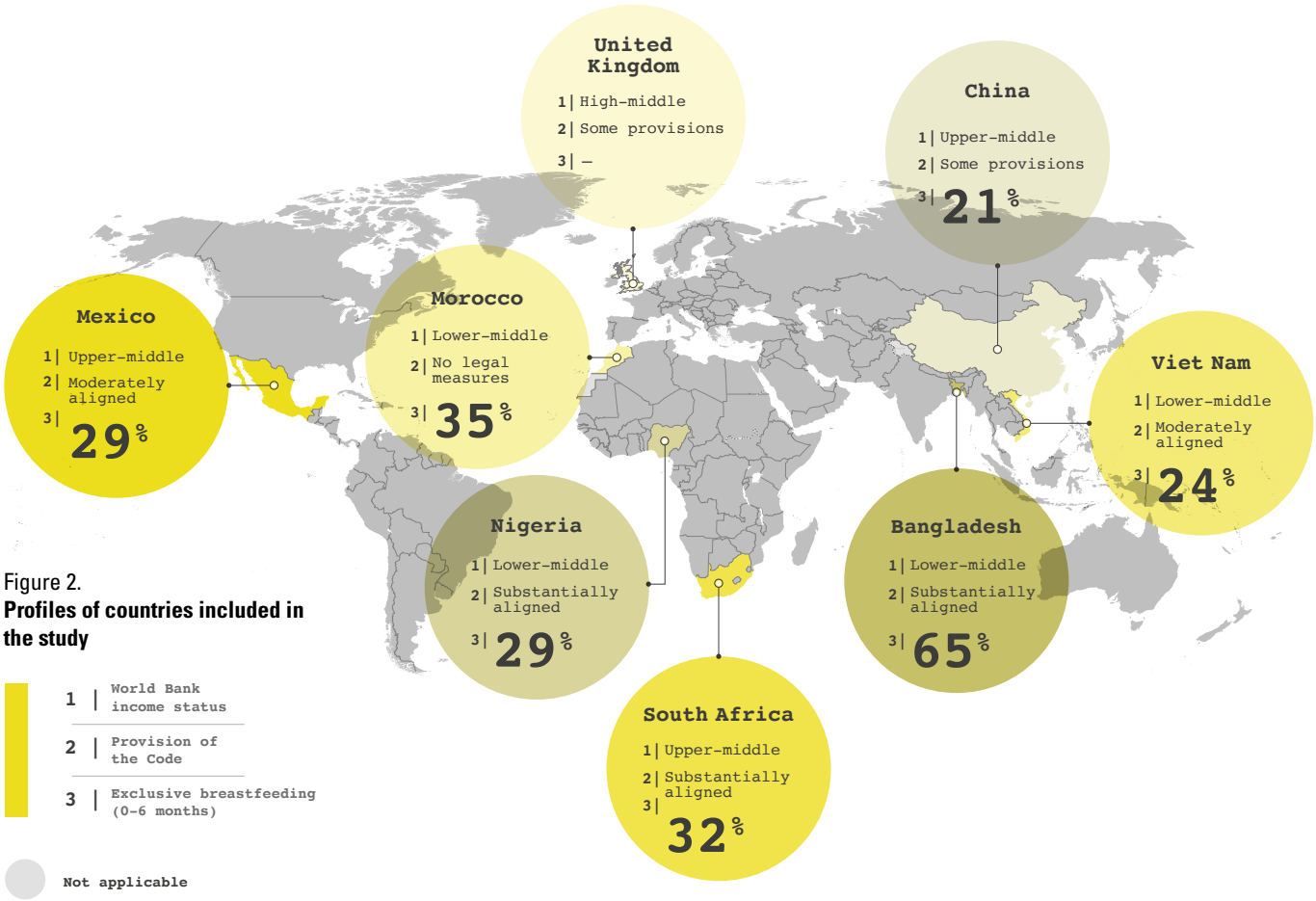


Figure 2.
Profiles of countries included in the study

[1] Details on the research methods can be found in the full research report, currently in press.

Overall, the study sought to answer the following questions.

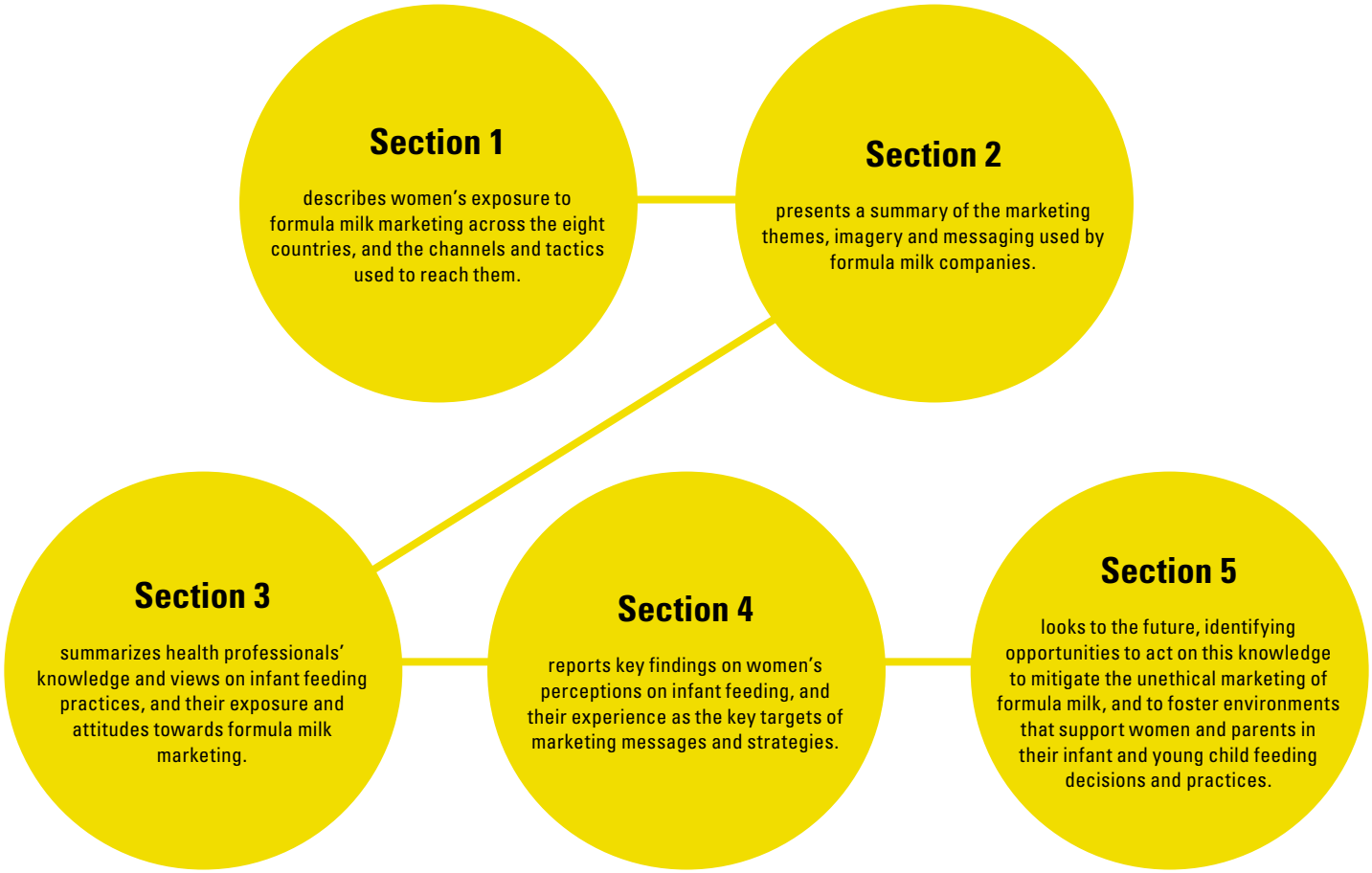
- What is the current formula milk marketing landscape across the eight countries?
- What are health professionals' views on the marketing of formula milk?
- What are women's attitudes towards and engagement with marketing of formula milk?

What emerges from this research is the most complete picture to date of mothers' and health professionals' experiences of formula milk marketing – and it is deeply troubling.

Across all eight countries, marketing practices actively seek to influence women's and families' infant and young child feeding decisions. Many women express the desire to breastfeed, yet a sustained flow of strategic and persuasive marketing messages undermines their confidence in breastfeeding and in themselves. Formula milk marketing, especially digital marketing, is relentless and highly targeted. Formula milk companies use nuanced marketing techniques to exploit parents' anxieties and aspirations. Companies infer scientific credence of health claims for their products with carefully crafted and tested language and labelling. Relationships of trust – in particular, those between health professionals and parents – are manipulated by formula milk companies, who incentivize and often unwittingly co-opt health professionals to endorse and promote their products.

Taken together, this research shows formula milk as a US$ 55 billion per year industry that systematically undermines parents' infant feeding decisions and compromises women's and children's health and human rights.

The findings of the full multi-country study report are summarized.



1. Marketing channels and tactics: pervasive and invasive

Marketing for formula milk products has been taking place for over a century. Despite international efforts to regulate it beginning with the Code in 1981 and subsequent relevant World Health Assembly resolutions, industry employs ever-evolving tactics to both defy and circumvent them. This multi-country study used multiple methods (survey, phone diaries, focus group discussions, in-depth interviews) to measure women's self-reported exposure to formula milk marketing, as well as marketing analyses to characterize the key channels and tactics employed by industry.

Marketing of formula milk is present in all countries surveyed, and pervasive in certain settings.

- 51% of the 8,528 pregnant and postnatal women surveyed reported seeing or hearing formula milk marketing in the preceding year. Self-reported exposure to marketing is highest among women in urban China (97%), Viet Nam (92%) and the United Kingdom (84%), and is also common in Mexico (39%) (Figure 3). In these countries, marketing is ubiquitous, aggressive and carried out through multiple channels.
- Traditional marketing, for example on television or through advertisements, is less common in Bangladesh, Morocco, Nigeria, and South Africa; here the effects of marketing are seen in recommendations from health professionals and on digital platforms.
- In particular, companies seek to reach younger, newly pregnant women – referred to by some marketing executives as the "holy grail" for formula milk sales *(13)*. Companies use data-driven algorithms that target digital advertising to women whose online behaviour suggests they may be pregnant.

> *"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."*
>
> ***Mother, Jinan, China***

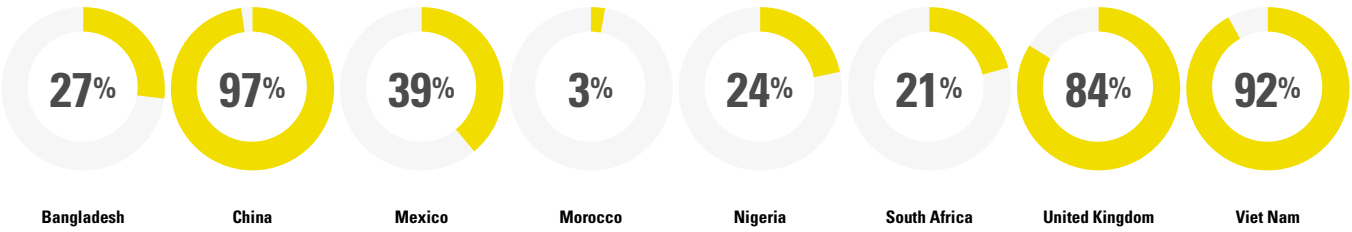
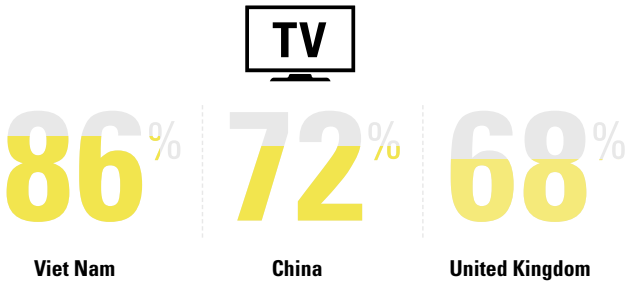


Figure 3. **Women's self-reported exposure to formula milk marketing in preceding year**

Formula milk marketing uses multiple channels to persuade women of the merits of and need for formula milk.

- ## Television.

Television marketing – including advertisements and product placement – was the most frequently recalled mode of marketing, with particularly high exposure in Viet Nam (86%), China (72%), and the United Kingdom (68%)(Table 1). According to Nielsen Intelligence [1] data, one company based in the United States of America spent over US$ 400 million on a television campaign for formula milk in China in 2018.



- ## Digital marketing.

Marketing executives revealed that formula milk companies increasingly rely on digital channels to reach women, an approach which has been further intensified by the COVID-19 pandemic. Social media channels are often inaccessible to many of the regulations by which traditional media abide. Digital marketing provides formula milk companies with a rich stream of personal data that they use to sharpen and focus their marketing campaigns. Women report being targeted by online marketing, with promotions prompted by their search behaviour for infant feeding advice and information. Some women spoke of being inundated by marketing for formula milk.

"There were a few brand X adverts on the side of the bus stops, that I saw. Obviously, we were looking online and that little (advert for) brand X milk popped up. With these cookies, they must know we're looking at baby stuff, and it's popped up out of nowhere to tell us about this brand X milk. I think there was a brand Y milk advert too."

Mother, London, United Kingdom

Funded by formula
WeChat "Moms Groups" in China

WeChat is China's leading mobile messaging app, with over one billion active users *(14)*. Marketing executives in China revealed that formula milk companies create or participate in these groups, and use the groups to glean information on women, to recommend products, to provide gifts, and to nudge women to buy their products.

- ## Digital influencers.

Influencers – those with large social media followings and the power to influence choices – make regular posts about formula milk. These influencers for formula milk include celebrities, paediatricians, so-called experts and mom influencers. In the United Kingdom, influencers uploaded videos and pictures online of their hospital bags, presenting formula brands. In China, marketing executives cited the particular effectiveness of mom influencers as key marketing channels.

Table 1. **Top three channels where formula milk marketing is seen or heard among mothers**

Bangladesh (*N*=321)	China (*N*=1014)	Mexico (*N*=413)	Morocco (*N*=27)	Nigeria (*N*=254)	South Africa (*N*=222)	United Kingdom (*N*=888)	Viet Nam (*N*=970)
Cable TV **66%**	TV **72%**	TV **84%**	Social media **78%**	TV **83%**	TV **78%**	TV **68%**	TV **86%**
YouTube **31%**	Supermarket **58%**	YouTube **12%**	TV **22%**	Hospital/clinic **10%**	Supermarket **17%**	Social media **18%**	YouTube **35%**
TV **25%**	BiliBili/ TikTok **41%**	Social media **9%**	Supermarket **4%**	Social media **9%**	Magazine **9%**	YouTube **6%**	Social media **35%**

[1] The marketing analysis included the use of Nielsen Intelligence data, among other sources, to gather information on formula milk advertising campaigns.. Further details can be found in the full Multi-country study report, currently in press.

Table 2. **% of Mothers receiving a free sample of formula milk**

	Bangladesh (*N*=1,178)	China (*N*=1,050)	Mexico (*N*=1,050)	Morocco (*N*=1,050)	Nigeria (*N*=1,050)	South Africa (*N*=1,050)	United Kingdom (*N*=1,050)	Viet Nam (*N*=1,050)
Free samples of formula milk in hospital	3%	18%	16%	19%	2%	8%	17%	28%
Free samples of formula milk outside hospital	3%	40%	4%	20%	2%	4%	4%	22%
Either inside or outside hospital	5%	46%	18%	26%	3%	10%	20%	35%

- **Free samples.**

  Free samples are an effective and well-documented marketing tool. Women in all eight study countries reported receiving free samples of formula milk, distributed inside and outside hospitals (especially private hospitals), by health professionals, at stores and by post. Samples were particularly common in China and Viet Nam, where 46% and 35% respectively of women surveyed had received at least one free sample (Table 2).

> *"If the consumers could provide a birth certificate, they can be given a can of stage 1 formula for free. This is a very effective way for formula companies getting new clients. If a baby drink stage 1 formula from one brand, in most of the cases, will drink stage 2 and 3 of the same brand."*
>
> ***Brand manager, formula milk company, Beijing, China***

- **Health settings.**

  In settings – including hospitals, pharmacies and clinics – formula milk companies use posters, materials citing their sponsorship, and branded goods to market their products. In Mexico, South Africa and Viet Nam health professionals report that some private hospitals are affiliated with particular brands and are paid to promote them. Almost one in five women in Viet Nam (19%) reported seeing promotional booths in a health setting, offering women promotions, "advice" and free samples, often in exchange for women's contact information to allow companies to follow up later with consultation calls and promotions.

- **Promotions and gifts.**

  Formula milk companies entice consumers with promotions, discount coupons, store card points and free gifts with the purchase of other baby items, such as strollers. Promotions and gifts were common in China, Mexico, the United Kingdom and Viet Nam. In China, over two thirds of women surveyed (68%) reported receiving offers or promotional discounts from a formula milk company, and 38% reported receiving gifts from a formula milk company.

> *"There's a milk booth at [hospital name]. After coming to see the doctor for a periodical pregnancy check, they can pass through this booth. Promotional Girls there will give pregnant women a milk sample and collect their phone number. This strongly influences the women's subsequent choice in the future."*
>
> ***Nurse, private hospital, Ho Chi Minh City, Viet Nam***

- **Baby clubs.**

  Baby clubs, organized and managed by formula milk companies, offer women gifts and discounts, information on pregnancy and birth, and access to "carelines" which provide 24/7 "support and advice". Baby clubs convened by formula milk companies were identified in China, Mexico, the United Kingdom, and Viet Nam, though sponsorship by industry is not always disclosed.

- **Talks and events.**

  Marketing executives in China spoke of lectures as a particularly important way of reaching consumers, as women trust expert opinions, and this builds brand credibility. Formula milk companies in all surveyed countries also held or sponsored talks, events and conferences for health professionals.

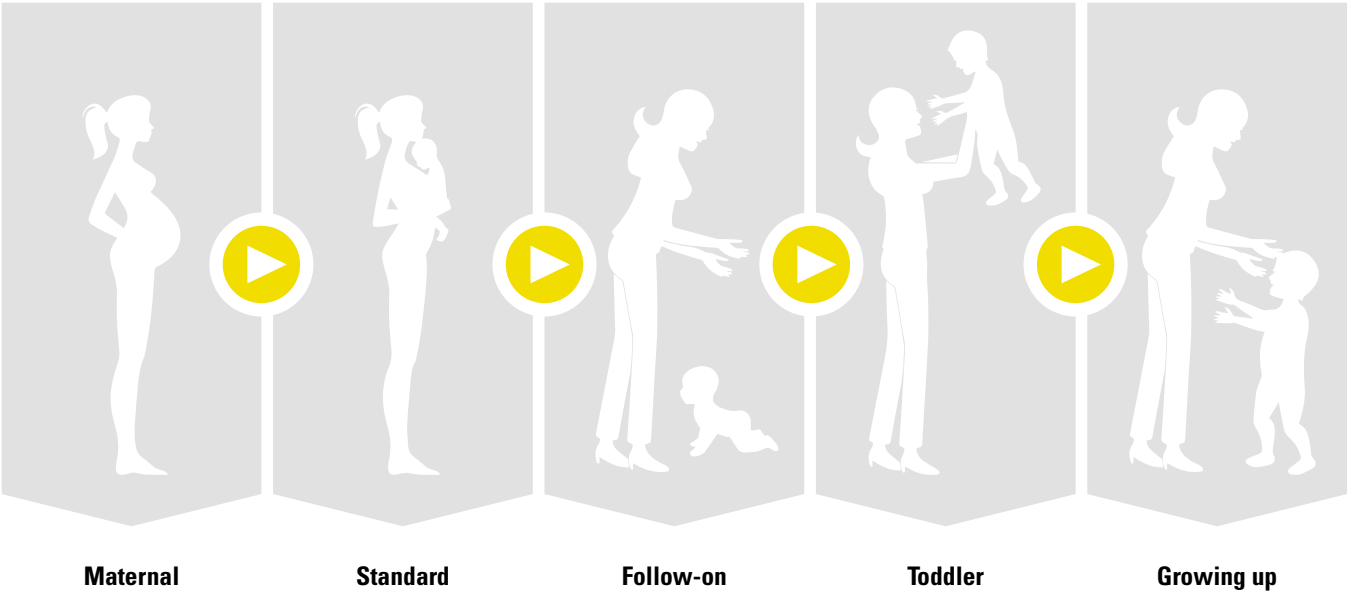
- **Direct interaction with company representatives.**

  Formula milk representatives contact consumers online, through social media, and on the phone, and present themselves as legitimate sources of advice and support for women. In urban China and Viet Nam, this contact was often framed as a consultation during which concerns about infant feeding and formula milk products were addressed.

- **Health professionals.**

  Recommendations from health professionals are a key channel of formula milk marketing. Health professionals spoke of receiving commissions from sales, funding for research, promotional gifts, samples of infant and specialized formula milk products, or invitations to seminars, conferences and events. This highly influential and problematic form of marketing is explored in greater detail in Section 3.

Figure 4. **Marketing of formula milk products at every stage**



The Bottom Line

Formula milk companies use a myriad of channels – both mass and highly personalized – to maximize the number of women they reach and the number of times they reach them. In some settings, this amounts to a constant flow of marketing that confronts pregnant women and mothers in public and private spaces.

2. Marketing messages: slick and misleading

This section reports the themes and content of formula milk marketing, drawing on data from the marketing analysis, phone diaries, interviews and surveys with women and interviews with health professionals and marketing executives. From this information, five main themes were identified as dominant in marketing strategies and messaging.

1 **Product options.** Industry has developed a wide range of formula milk product options which are strategically marketed together, and which serve to normalize their use during pregnancy and throughout infancy and early childhood.

- Expanding the portfolio of products available is a common marketing strategy to boost sales and circumvent the Code.[1] Findings from the marketing analysis show an increasing range of products on offer across all countries, especially follow-on milks (stage 2), but also toddler (stage 3), and growing-up (stage 4) formula milks.[2] In Viet Nam, a highly competitive market, at least 28 formula products came to market in 2018 alone.
- Infant formula (stage 1) is typically marketed under the same umbrella brand and shelved alongside milks for older children (stages 2–4), benefiting from brand

Cross-promotion in South Africa

[1] Product is one element of the marketing variables (product, price, promotion and place) commonly referred to as the 4Ps which are used to develop brands and brand families.
[2] Data were available from all countries except Morocco.

recognition, known as "cross-promotion" *(15)*. Women recalled seeing marketing for stage 1 infant formula products despite the Code and national legislation prohibiting this marketing. Some women spoke of how it was sometimes unclear which formula product was intended for which age of infant.

> *"I saw these (formula milks) on (website for a store) and they all seemed to be … a more grown-up or follow-on milk. But, I found it all a bit confusing because I can't really say that- I couldn't tell from the packaging immediately what the different types of milk were for."*
>
> ***Mother, London, United Kingdom***

- Some companies have widened their product range to include milk for women, usually called maternal milk. Nearly all women surveyed in China (93%) and Viet Nam (96%) had heard of maternal milk which can establish brand loyalty and familiarity with formula milk products before an infant is born. Nearly one half (48%) of all women surveyed in Viet Nam had received a free sample of maternal milk, often distributed at promotional booths inside and outside of hospitals in exchange for women's contact details.

> *"My family told her I was about to give birth and the promotional girl said that I could also take milk for pregnancy (maternal milk) even after giving birth so that I can produce breast milk. They also gifted me with milk and diapers for my baby."*
>
> ***Pregnant woman, Ho Chi Minh City, Viet Nam***

- Formula feeding usually involves a multi-step process, including sterilization of bottles. In recent years, formula milk companies have launched new products which focus on convenience. For example, one company now markets a formula milk capsule machine similar to a prominent brand of coffee machine, advertised as a premium product for busy mothers. These products are designed to convey formula milk as the easier and more convenient life option.

2 **Science.** Science is a dominant theme in the marketing of formula milk across all eight countries, including scientific imagery, language and pseudo-scientific claims.

- Formula milks are positioned as close to, equivalent and sometimes superior to breast milk, presenting incomplete scientific evidence and inferring unsupported health outcomes. Ingredients, such as human milk oligosaccharides (HMOs) and docosahexaenoic acid (DHA), are advertised as "informed" or "derived" from breast milk and linked to child developmental outcomes. Examination of the scientific evidence cited does not support the validity of these claims *(16–18)*.

> *"I think that all those scientific acronyms like DHA give a feeling of scientific sophistication. You don't know what it is but sounds cool."*
>
> ***Pregnant woman, Guadalajara, Mexico***

> *"After 6 months from birth, the nutritional needs of the child are increasing... breast milk will not be enough to meet the nutritional needs of children. Children can use brand X milk to supplement their nutrition when necessary to meet the needs for their development. The goal of today's manufacturers is to produce products that are more similar to breast milk."*
>
> ***Advertising post from a US formula milk company on popular Viet Namese parenting forum***

- Marketing using science-based messages is impactful. One brand previously marketed itself as "closest to breast milk" until it was prohibited from doing so in 2007 by a United Kingdom government watchdog. Despite this prohibition, findings from interviews demonstrate that this brand message still resonates, and many women still perceive this brand to be the closest to breast milk.

> *"I think a lot of women think that brand X this amazing breast-milk substitute because that's their slogan, and a lot of women are falling for that and it costs a bit more money, that seems to be definitely working … We never recommend a brand but I have heard people say that they use brand X because it's closest to breast milk, that's an actual quote from the brand X"*
>
> ***Midwife, public hospital, London, United Kingdom***

- Collaboration with health professionals is key for formula milk companies, both to imply to consumers that their brand has scientific grounding and credibility, and to use health professionals as conduits for marketing. Formula milk companies use a multi-pronged approach to build trust with health professionals. (These approaches are described in greater detail in Section 3)

"I find those advertisements more reliable when there is someone with a white lab coat, and then they show these letters. I don't know if it's a marketing think, but they show those letters so that you can remember the contents of the formula as well as mentioning the ISO accreditation."

Pregnant woman, Guadalajara, Mexico

3 **Pain points.** Marketing creates and nurtures pain points – problems, real or perceived – out of common infant behaviours such as crying and tiredness, and manufacturers position their products as the solution.

- Pain point marketing is a common but often subtle feature that aims to either raise awareness of a problem, or convince potential customers that they have a problem which can be solved by purchasing a product *(19)*. There has been a rise in marketing for specialized and comfort milks that make bold claims to solve common infant ailments and behaviours such as colic, reflux and crying, despite insufficient evidence that they are effective *(16–18, 20, 21)*.

"The doctor advises that this formula milk is perfect for your child. By feeding this milk, the physical problems we [the baby] have when we [the baby] drink this milk will no longer exist. We keep in mind the suggestion of doctors. Brand X is very good."

Mother, Dhaka, Bangladesh

- In China, Mexico, South Africa, the United Kingdom, and Viet Nam, new products focus on allergies and sensitivities, an area identified by formula milk companies as valuable for sales and business growth. Formula milk companies foster need for these milks; for example, in the United Kingdom a company has an app which "helps parents along their diagnosis journey" to using their specialized milks.
- Marketing campaigns in several countries focused on how domestic products are more "tailored to local stomachs" than international products to counter the influence of foreign brands gaining traction with women and health professionals.

4 **Trust and connections.** Marketing companies exploit vulnerabilities by positioning themselves as friendly, non-judgemental and supportive of women, employing various tactics to build trust and emotional connections.

- Formula milk companies assume a socio-emotional, supportive role for pregnant women and mothers in the form of 24/7 carelines, baby clubs and phone apps. Women may be directed to these sites and clubs without knowing who the sponsor is and the extent to which the advice is not independent.

Baby clubs and influencers in the United Kingdom

In the United Kingdom, each of the four biggest formula brands have established baby clubs and 24/7 carelines targeted at pregnant women, mothers and fathers. One formula milk company provides a COVID-19 -specific baby club, positioning itself as offering support and advice during "uncertain times". Interviews demonstrate that these clubs can influence women's awareness of, and receptivity to, formula milk companies and brands.

- The eradication of guilt and judgement is a central focus of formula milk marketing across countries. Formula milk companies position themselves as friendly and non-judgemental and aim to mitigate guilt around products by reassuring women that good mothers use formula.

"I know it sounds bad, but my mommy instinct took over and I wanted the most expensive, because I am making up for not breastfeeding her."

Mother, Johannesburg, South Africa

5 **Aspirational and emotional appeals.** Formula milk companies use sophisticated emotional and aspirational approaches, promoting products as the pathway to achieve a certain lifestyle and optimal child development.

- Emotional marketing capitalizes on basic emotions, such as the happiness of a baby or nostalgia, to evoke a connection with the company, brand and product *(22)*, while aspirational marketing inspires an image of what consumers want their children to be *(23)*. These are powerful tools that can establish strong brand associations in consumers' minds lasting for years *(24)*

Aspirational marketing appeals

Left: *Ad for formula milk in Mexico* **Top Right:** *Ad for formula milk in Viet Nam*
Bottom Right: *Ad for European formula milk in China*

Western
Advertisements show a "Westernized" home with "Western-looking" actors. In China and Viet Nam, marketing often uses language such as "Dutch quality"and "Swiss purity".

Growth and intelligence
Advertisements focus on intellectual development and how products could aid brain development, and on how they help infants and young children to grow.

Modern
Male participation in child rearing is frequently shown in advertisements, promoting a modern lifestyle.

Premium
Products are presented as superior, often including colours such as gold to imply exclusivity. This common approach leverages wanting the best future for one's child and gets parents to pay higher prices.

The Bottom Line

Formula milk companies use sophisticated techniques and misleading messaging to market their products, including scientific language and imagery, pain points, and emotional and aspirational appeals. They also assume a friendly, supportive role to pregnant women and mothers, exploiting vulnerabilities to gain access and increase sales.

3. Health professionals: personal access, trusted role

In many countries and regions of the world, health professionals are among the most respected and trusted members of society. The advice of health professionals is highly influential for pregnant women and parents of infants and young children, including around infant feeding decisions. Formula milk companies have sought to exploit this relationship of trust by actively targeting health professionals as part of their marketing campaigns.

During the multi-country study 300 interviews were conducted with health professionals, including paediatricians, obstetricians, gynaecologists, nurses and midwives from public and private hospitals, pharmacists, nutritionists and community health workers. The findings are described below.

Health professionals have a strong influence on women's infant feeding attitudes and practices.

- In all countries in the study, health professionals were reported as the main source of education on infant feeding practices, including breastfeeding, and interacted with women to provide support and encouragement.

Health professionals are positive about breastfeeding and, in general, promote it as the optimum feeding choice.

- Health professionals in all countries say that attitudes towards breastfeeding among women have become more positive in recent years.

> *"I think in recent years, I personally think that the percentage of breastfeeding for 0–6 months babies is higher and higher because this is closely related to our country's emphasis on breastfeeding, and baby-friendly hospitals. Especially in Beijing, [there] are a lot."*
>
> ***Nurse, public hospital, Beijing, China***

- Health professionals in some countries cited the impact of legislation, policy changes, and specific initiatives (in particular, the Baby-friendly Hospital Initiative (BFHI) *(25)*) in supporting breastfeeding.

The Baby-friendly Hospital Initiative (BFHI)

The Baby-friendly Hospital Initiative (BFHI) was launched in 1991 by WHO and UNICEF to promote, protect and support breastfeeding in health facilities. It requires compliance with the Code, including restricting marketing of formula and other products which fall under the scope of the Code and educating health professionals on conflicts of interest. The Initiative was found to be particularly influential in the United Kingdom, where the majority of health professionals who were interviewed strongly opposed the marketing of formula milk.

Some health professionals, explicitly or inadvertently, introduce doubts around the ability of women to breastfeed and the value and quality of their breast milk, which together deter and discourage women from breastfeeding.

- In some contexts, health professionals stated that formula milk is needed in the initial days. In China, Mexico and Viet Nam, health professionals commonly recommend the introduction of formula milk immediately after birth as a necessary supplement from the first days of life, thus normalizing the introduction of formula milk products from an early stage.

> *"In our country everyone believes that breast milk is not enough. They need to feed formula milk in order to meet the nutritional needs."*
>
> ***Doctor, private hospital, Dhaka, Bangladesh***

> *"In some hospitals, they only give the baby back to the mother after 6 or 12 hours. In those cases, there's a specific brand of formula they give them."*
>
> ***Paediatrician, public hospital, Mexico City, México***

- Some health professionals expressed doubts about the quality of breast milk and promoted alternative milks, undermining continued breastfeeding. Many health professionals believed that the quality and/or quantity of breast milk is adequate up to 6 months and then declines, at which point they recommend formula milk.
- Some health professionals believe that formula milk is necessary when introducing solids, and throughout and beyond the toddler years.

Health professional recommendations to use formula milk were common across the surveyed countries, particularly post-partum.

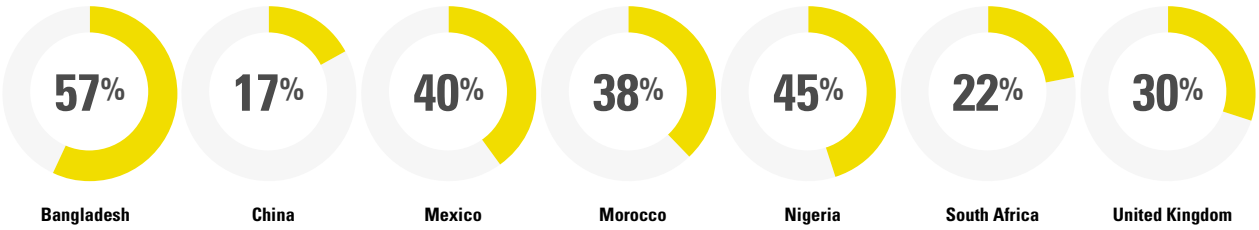


Figure 5. **Proportion of women who received recommendations from health professionals to use a formula product**

- In Bangladesh, nearly 60% of post-partum women, and in Nigeria, 45%, had received a recommendation from a health professional to feed a formula product (Figure 5). [1]

Formula companies systematically target health professionals and attempt to encourage them to convey specific information, and health professionals sometimes – knowingly or unknowingly – repeat marketing messages to women.

- Health professionals in all surveyed countries are approached by formula milk company representatives, although this differs in frequency and intensity. Health professionals in Morocco, Nigeria and Viet Nam reported that contact with formula milk companies was extremely common in public and private health care settings. In South Africa and the United Kingdom, health professionals noted that contact attempts in public hospitals have declined in recent years; however, visits in South African private hospitals were common. Health professionals in several countries commented that meetings with formula milk company representatives no longer focused explicitly on brand recommendations, but instead were presented as learning opportunities where information about products – and infant feeding and nutrition more generally – is shared.
- Formula milk brand representatives target different types of health professionals – including paediatricians, nurses, dieticians and hospital administrators – with a range of incentives, including funding for research, commissions from sales, ambassadorial roles, merchandise, gifts and all-expenses paid promotional trips.

> *"They have conversations with paediatricians and midwives and ask to give [free samples] to them and encourage them to use it. [They gave me] a sample of infant milk."*
>
> ***Midwife, Marrakesh, Morocco***

- Conferences and training events sponsored by formula milk companies are widespread. Companies are often subtle in their promotion of conferences and training courses, portraying them as opportunities to learn about child health, breastfeeding or postnatal care.
- Specialized milks, such as for allergies, are used as a gateway and brand promotion to reach health professionals, and thereby circumvent restrictions on formula milk company representatives visiting health facilities.
- In some countries, formula milk marketing is present in hospitals, suggesting to women that health professionals endorse formula feeding.

> *"I mean, the formula companies, they absolutely love allergy. The allergy conferences, the eczema conferences … the specialties that deal with allergy, they're absolutely at the centre. They're the biggest funders at the meetings."*
>
> ***Paediatric consultant, London, United Kingdom***

- Research programmes are funded, and some prestigious medical institutes are thus involved with advancing the credibility and claims of formula products and the corresponding brand.

Health professionals understand that formula milk marketing influences women's infant feeding attitudes and decisions, and most are supportive of laws restricting such marketing in their countries.

- Health professionals spoke of how women often relayed the marketing messages used by formula milk companies; slogans that advertise products as "closest to breast milk" are particularly influential.
- Most health professionals were supportive of laws on formula milk marketing in their countries, although some felt they were too strict. Many expressed concern that legislation is not being implemented, or that formula milk companies are findings ways around legislation.

The Bottom Line

Health professionals have personal access to pregnant women and parents of young children, and a trusted role in providing evidence-based, independent, impartial advice. Systematic marketing by formula milk companies seeks to influence health professionals' understanding of breastfeeding, to convince them of the need for formula, and to use them as channels for marketing.

[1] This question was not used in the survey in Viet Nam.

4. Women's experiences, women's voices

Women are the primary targets of formula milk marketing and have been for decades. The increasingly digital nature of marketing has dramatically enhanced its capabilities to target and monitor the effectiveness of advertising strategies. Approaches aim to engage women early in their pregnancies to create brand loyalty from then through their children's infancy, the toddler years and beyond.

The multi-country study used four different research methods, both quantitative and qualitative, to document the perspectives and experiences of over 8500 women across the eight study countries. The following paragraphs describe some of the findings.

Women express a strong desire to breastfeed, but they often encounter a lack of support and are commonly troubled by fears and doubts that reflect marketing messages.

- Across all countries, women expressed a strong desire to breastfeed exclusively, ranging from 49% of women in Morocco to 98% in Bangladesh (Figure 6). Marketing messages reinforce myths about breastfeeding and breast milk, which are frequently repeated by women. These myths include the necessity of formula in the first days after birth, the inadequacy of breast milk for infant nutrition, the perception that formula keeps infants fuller for longer, and that the quality of breast milk declines with time.

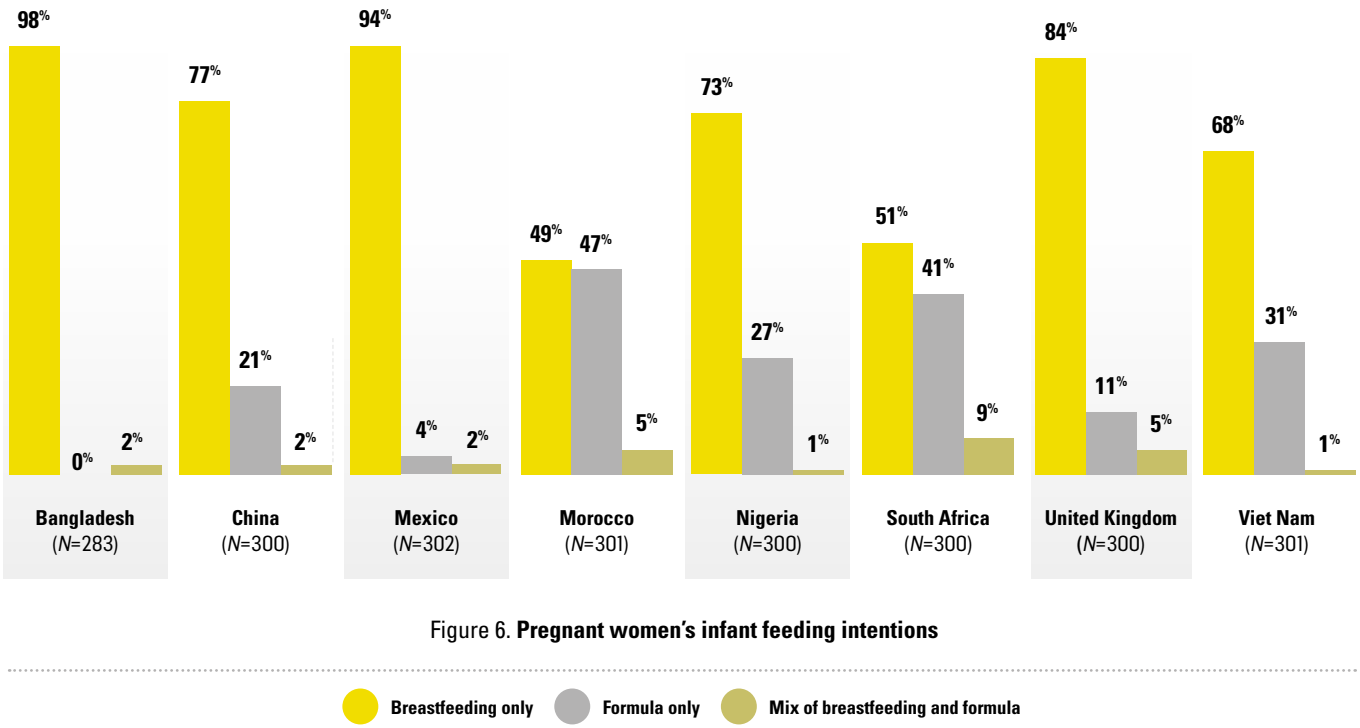


Figure 6. **Pregnant women's infant feeding intentions**

- Women exposed to formula milk advertisements and promotions are more likely to have favourable attitudes towards formula milk. Women's feeding behaviours are also substantially related to exposure to marketing. In Bangladesh, 44% of women who exclusively formula fed had been exposed to marketing for formula milk, compared to 27% of women who exclusively breastfed.

"Yes, when mothers see the ad they get motivated as they claim brain development, nutrition, and other benefits, then the mothers think that if they feed this to their baby then their baby will be healthy. This is why they buy the product by seeing the ad."

Mother, Dhaka, Bangladesh

"Sticky" marketing messages

In China and Viet Nam women who were exposed to more marketing were significantly more likely to answer that 'nutrition is more comprehensive and balanced in formula' compared to breast milk ($P < 0.05$). In Mexico and Morocco women who were exposed to more marketing were significantly more likely to agree with the statement 'formula is very like breast milk' ($P < 0.01$).

"After 6 months, the nutrition in breast milk is not enough. Though it has immunity, its nutrition source is not as good as formula."

Mother, Ho Chi Minh City, Viet Nam

"Once the baby drinks the bottle milk, he will fall asleep quickly, or 3 hours at least compared to the natural breastfeeding."

Mother, Marrakech, Morocco

Marketing can convince women of the need for a wide range of formula milk products, including stage 2–4 milks, specialized formula milks (e.g. for allergies), comfort formula milks and maternal milks.

- Exposure to marketing is correlated with the belief that formula milks are necessary for older infants, aligning with the message that breast-milk quality declines over time. In all surveyed countries, apart from the United Kingdom, at least 80% of women who were aware of stage 2 formula believed that it was necessary (Figure 7).

"If you look at ... stage two and stage three ... It's, kind of, 'Let's continue your journey. Let's help you.'... I felt like... the formula milk is a good thing because it will support your child's growth later on as they're growing... So, I feel like I was tricked into follow-on formula, to be honest."

Mother, London, United Kingdom

- Formula milk companies are increasingly marketing specialized and comfort formula milks. Aligning with pain point marketing strategies, women in the majority of countries spoke of how these milks are desirable.
- Women also experienced marketing for maternal milks in China and Viet Nam. In Viet Nam, some women discussed how they fed their infants formula milk products of the same brand as the maternal milk that they used, demonstrating the intention and power of cross-promotion.

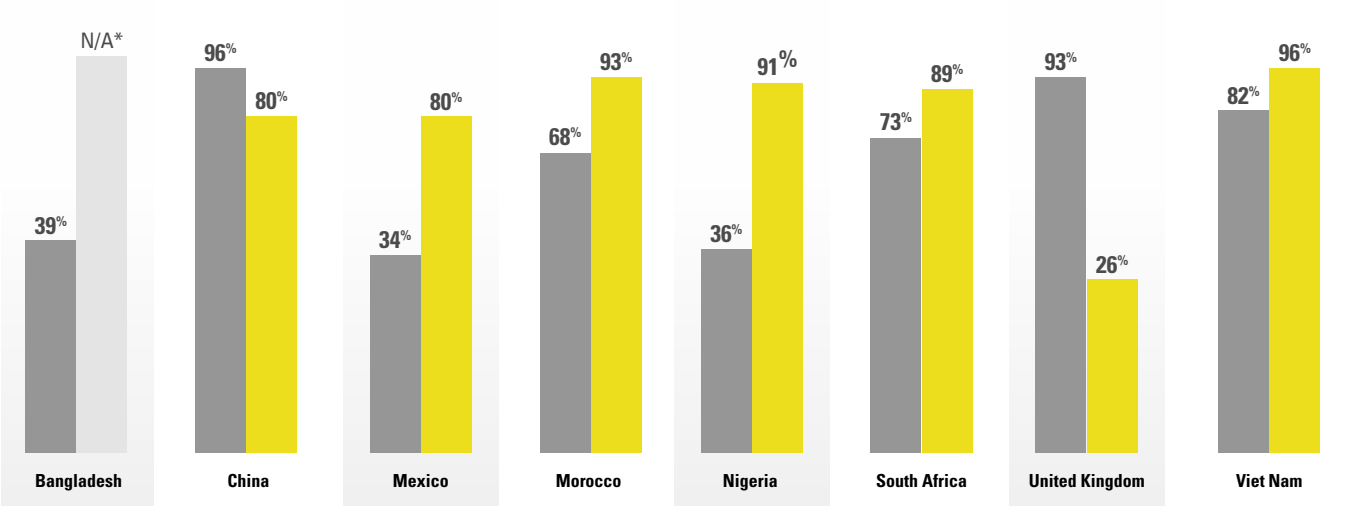


Figure 7. **Awareness of and perceived need for stage 2 formula milk**

Awareness Perceived need among those who are aware

Health professionals' recommendations influence women's feeding decisions.

- In some contexts, advice from health professionals, though probably unintentional, detracted from women's confidence to breastfeed and caused women to question the value of breastfeeding. In Nigeria, where women ranked health professionals as their most important source of feeding advice, over one third of surveyed pregnant women said they received a recommendation to formula feed by a health professional. In Bangladesh, 72% of women who exclusively formula fed received a recommendation to feed formula from a health professional, compared to 18% among women who breastfed.
- Overall, more than one third of all women stated that they received a recommendation for a specific formula brand from a health professional. More than one half of all formula-feeding mothers (53%) in Mexico chose their brand because of a recommendation from a health professional.

"In the hospital, they said: 'when she is born, buy this formula'. It is a private hospital ... they said (they give) formula when the baby is born, they feed the baby the first day and they give him to you the second day."

Mother, Guadalajara, Mexico

"It is easier for me to go either to a sister [nurse] or a doctor to know what I am buying. Once the doctor recommends it and I see it's good for my baby, I will base on that."

Pregnant woman, Lagos, Nigeria

"Yes, the paediatrician suggested one and that's what I chose, I didn't do much research. I trusted what the paediatrician told me, that's why I didn't remember the ads."

Mother, Guadalajara, Mexico

Formula milk packaging is appealing to some women and can strongly influence women's attitudes and purchasing decisions.

- In all countries, women said how packaging and information on milk formula tins influence their decisions. Women spoke of packaging that positioned the product as close to or equivalent to breast milk as favourable, and of finding products that are scientific or premium more appealing.
- Other mothers commented that they were confused by the packaging and did not know how the products differed and whether one brand was better than another.

"Advertisements will make me buy infant formula, if I see a beautiful and chubby baby on TV, well fed and smiling and there is a container of milk there with all the nutritional facts on it, detailed."

Mother, Lagos, Nigeria

- Standardized packaging – plain packaging – was discussed as a way for health authorities to communicate impartial and informative public health messages around infant feeding. Most women were receptive to the concept of public health messages, but stated that they should be clear and relevant, and must not shame or judge formula-feeding mothers.

Countering the marketing message

Health professionals can be powerful channels of counter-marketing. In the United Kingdom, national guidance states that stages 2–4 formtula products are not required and that if feeding with formula, stage 1 should be used for the first 12 months before moving on to cow's milk. Interviews with health professionals in the United Kingdom revealed that this guidance was usually provided by health professionals and health visitors visiting women in the first days after birth. Interviews revealed that this guidance was effective, and that many were cynical about the marketing of formula milks for older infants, and instead followed the advice of health professionals. While awareness of stages 2–4 formula is relatively high in the United Kingdom, the perceived need for these is much lower than in the other seven survey countries.

The Bottom Line

Women are exposed to a high level of formula marketing which begins early in pregnancy, is targeted, and is delivered through multiple channels – including health professional recommendations. Marketing influences women's attitudes towards formula feeding.

5. Opportunities for action

The research shows that formula milk marketing knows no limits. It misuses and distorts information to influence decisions and practices. The consequences for the health and human rights of women and children are not new but often overlooked.

For about forty years, most countries have collectively and repeatedly articulated through international instruments and resolutions that formula milk marketing should not occur. Indeed, apart from breast-milk substitutes (formula milk products) and tobacco, the World Health Assembly has not adopted a code of marketing for any other health or nutrition product. This reflects the exceptional contribution and importance of breastfeeding to health and development. However, over forty years and in all regions, marketing has repeatedly failed to adhere to the Code, demonstrating a disregard for the collective will of the world's countries – putting the pursuit of sales and the interests of shareholders ahead of the health and rights of children and families.

As described in this summary report, unrelenting and multi-faceted marketing aims to persuade families, health professionals and wider society of the need for formula milk products, undermining child health and development. Marketing practices exploit uncertainty when mothers and parents are at their most vulnerable, and aim to change the values, beliefs and practices of families and communities. The distortion of objective information and the misuse of science negatively impacts on access to accurate and impartial information – an essential human right as stated in the Convention on the Rights of the Child *(26)*.

The findings from this study heighten an already compelling case for action.

The persistence of marketing of formula products should not be mistaken as inability for change. This research points to immediate and tangible opportunities for action that governments, health professionals and their associations, civil society and individuals can and should take to put a stop to the unethical marketing of formula milk, and to invest in the support that mothers and families want and need for infant feeding decisions.

Marketing practices exploit uncertainty when mothers and parents are at their most vulnerable, and aim to change the values, beliefs and practices of families and communities.

Opportunities for Action

1. **Recognize the scale and urgency of the problem.** Political leaders at the highest level, public health institutions, health professionals and their associations, and civil society should fully recognize and expose the pervasive and invasive nature of formula milk marketing, and the harm it causes for child and maternal health and human rights, for societies, for economies, and for the environment.

2. **Legislate, regulate, enforce.** Countries should urgently adopt or strengthen comprehensive national mechanisms to prevent formula milk marketing, including:
   - domestic legislation – health, trade and labour – in line with the Code, closing all loopholes;
   - robust enforcement and accountability mechanisms, including holding formula milk companies accountable for their practices and commitments;
   - regulatory measures, including plain packaging for formula products and higher standards of evidence for product development;
   - programmatic initiatives, such as strengthening and expanding the Baby-friendly Hospital Initiative (BFHI).

3. **Protect the integrity of science and medicine.** Health professionals and their associations should adopt, publicize and implement strong conflict-of-interest policies to impede corporate interests from influencing critical health guidance and training on infant and young child feeding; and governments should invest in training and building the skills of health professionals in this area. Health professionals and governments should actively counter commercially driven messages on infant feeding and provide accurate, impartial information to women and parents.

4. **Safeguard children's health on digital platforms.** The entire digital ecosystem – including data capture, data brokering and content dissemination – should be comprehensively reviewed using a public health lens, and governments and international authorities should develop enforceable regulations that protect child health and development from harmful commercial marketing.

5. **Invest in mothers and families, divest from formula milk companies.** Countries, donors, and investors should scale up investments in wide-ranging measures to support mothers and families, including support for breastfeeding and health systems, and maternity and parental leave, and divest from companies that exploit families through unethical marketing of formula milk products.

6. **Expand coalitions to drive action.** Stopping unethical formula marketing needs actions across society – not just those groups and individuals involved in infant feeding or child health. Marketing of formula is emblematic of marketing of other products such as tobacco or gambling that prioritize sales over health and well-being. Coalitions are needed to challenge commercially-driven practices and demand action and accountability.

The evidence is strong. Formula milk marketing, not the product itself, disrupts informed decision-making and undermines breastfeeding and child health. All sectors of government including health, labour and trade, health professionals and their associations, investors and those with economic leverage should fulfil their responsibilities and exert their influence to insist on practices that prioritize children and parents over commercial interests.

Society is not a bystander – everyone must protect the environment in which women and parents feed their infants and demand the appropriate care, support and protection of rights. The research findings reveal the priorities of formula milk companies and how far they are prepared to go to achieve their sales and market growth. In response, we must be clear about the type of world that we stand for; what is ethical and acceptable; and where concern for our children and their futures guide and prioritize our actions today.

Society is not a bystander – everyone must protect the environment in which women and parents feed their infants and demand the appropriate care, support and protection of rights.

"For decades the formula milk industry has disregarded international recommendations when marketing their products, often to women who can ill afford it. Formula milk marketing knows no limits; it should be off limits."

- Helen Clark
Former Prime Minister, New Zealand

References

1. International Code of Marketing of Breast-milk Substitutes. Geneva: World Health Organization; 1981.
2. Anttila-Hughes JK, Fernald LCH, Gertler P, Krause P, Wydick B. Mortality from Nestlé's marketing of infant formula in low and middle-income countries. Working paper 24452. Boston, MA: National Bureau of Economic Research; 2018 (https://www.nber.org/papers/w24452, accessed 28 December 2021).
3. Global strategy for infant and young child feeding. Geneva: World Health Organization; 2003.
4. Victora CG, Bahl R, Barros AJ, Franca GVA, Horton S, Krasevec J, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. Lancet. 2016;387:475-90.
5. Baker P, Santos T, Neves PA, et al. First-food systems transformations and the ultra-processing of infant and young child diets. The determinants, dynamics and consequences of the global rise in commercial milk formula consumption. Maternal & child nutrition. 2021;17(2):e13097.
6. Rollins NC, Bhandari N, Hajeebhoy N, Horton S, Lutter C, Martines J, et al. Why invest, and what it will take to improve breastfeeding practices? Lancet. 2016;387:491-504.
7. National Cancer Institute. The role of the media in promoting and reducing tobacco use. Tobacco Control Monograph No. 19. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; 2008.
8. Jernigan D, Noel J, Landon J, Thornton N, Lobstein T. Alcohol marketing and youth alcohol consumption: a systematic review of longitudinal studies published since 2008. Addiction. 2017;112 Suppl1:7-20.
9. Smith R, Kelly B, Yeatman H, Boyland E. Food marketing influences children's attitudes, preferences and consumption: a systematic critical review. Nutrients. 2019;11(4):E875.
10. Piwoz EG, Huffman SL. The impact of marketing of breast-milk substitutes on WHO-recommended breastfeeding practices. Food and Nutrition Bulletin. 2015; 36(4):373-86.
11. Smith J, Sargent G, Mehta K, et al. A rapid evidence assessment: Does marketing of commercially available complementary foods affect infant and young child feeding? Canberra, Australia: Australian National University, WHO; 2015.
12. Stewart JF, Guilkey DK. Estimating the health impact of industry infant food marketing practices in the Philippines. Journal of Development Studies. 2000;36(3):50-77.
13. Hastings G, Angus K, Eadie D, Hunt K. Selling second best: how infant formula marketing works. Globalization and Health. 2020;16(1):77.
14. Iqbal M. WeChat revenue and usage statistics. Business of Apps [online]; 2022 (https://www.businessofapps.com/data/wechat-statistics/, accessed 10 February 2022).
15. Erdem T, Sun B. An empirical investigation of the Spillover Effects of Advertising and Sales Promotions in Umbrella Branding. Journal of Marketing Research. 2002;39(4):408-20.
16. Munblit D, Crawley H, Hyde R, Boyle RJ. Health and nutrition claims for infant formula are poorly substantiated and potentially harmful. BMJ. (Clinical researched) 2020;369:m875.
17. Verfuerden ML, Dib S, Jerrim J, Fewtrell M, Gilbert RE. Effect of long-chain polyunsaturated fatty acids in infant formula on long-term cognitive function in childhood. A systematic review and meta-analysis of randomised controlled trials. PLoS One. 2020;15(11):e0241800.
18. Hughes H, Landa M, Sharfstein J. Marketing claims for infant formula: The Need for Evidence. JAMA Pediatrics. 2017;171(2):1056.
19. Shewan D. Pain Points: A guide to finding and solving your customers' problems. WordStream [Online]; 2021 (https://www.wordstream.com/blog/ws/2018/02/28/pain-points, accessed 10 February 2022).
20. Crawley H. Infant milks: a simple guide to infant formula, follow-on formula and other infant milks. London: First Steps Nutrition Trust [online]; 2019 (https://static1.squarespace.com/static/59f75004f09ca48694070f3b/t/5c59379e6e9a7f0c422fc06f/1549350816390/Infant_milks_a_simple_guide_Feb_2019_final.pdf, accessed 10 February 2022).
21. First Steps Nutrition Trust. Claims made for infant formula, ingredients and formulations. London: First Steps Nutrition Trust [online]; 2019 (https://www.firststepsnutrition.org/reviews-of-claims, accessed 29 December 2021).
22. Matson M. Make them cry (and buy) with inspiring emotional marketing. ReferralCandy [online]; 2020 (https://www.referralcandy.com/blog/emotional-marketing-examples, accessed 10 February 2022).
23. Hill D. Emotionomics: leveraging emotions for business success. London and Philadelphia: Kogan Page Ltd; 2009.
24. Mohsin M. 10 branding statistics you need to know in 2021. Oberlo [online]; 2020 (https://www.oberlo.co.uk/blog/branding-statistics, accessed 10 February 2022).
25. Baby-friendly hospital initiative: revised, updated and expanded for integrated care. Geneva: World Health Organization, United Nations Children's Fund; 2009 (https://apps.who.int/iris/ handle/10665/43593, accessed 10 February 2022).
26. United Nations Convention on the Rights of the Child. Convention on the Rights of the Child. Vol. 23, Social Policy & Administration. New York: United Nations; 1989 (https://www.ohchr.org/Documents/ProfessionalInterest/crc.pdf, accessed 30 December 2021).

9789240044609

World Health Organization

unicef
for every child