

Maternal Nutrition  
Report • August 2023

A photograph of a woman with long blonde hair, wearing a light blue and white striped short-sleeved shirt, holding a baby. She is kissing the baby on the cheek. The baby is wearing a white diaper with a blue pattern. The background is a soft-focus indoor setting with light-colored walls and a window with curtains. There are large, semi-transparent blue circular shapes on the right side of the image.

# Maternal health, attitude and behavior report

Uncover new opportunities in  
the maternal nutrition space

dsm-firmenich 

# Understanding what matters most to mothers

**Increased nutritional support throughout the motherhood journey – usually in the form of supplements – is essential to promote happy and healthy mothers and babies. But what do women really think about maternal nutrition products and how can brands better support them?**

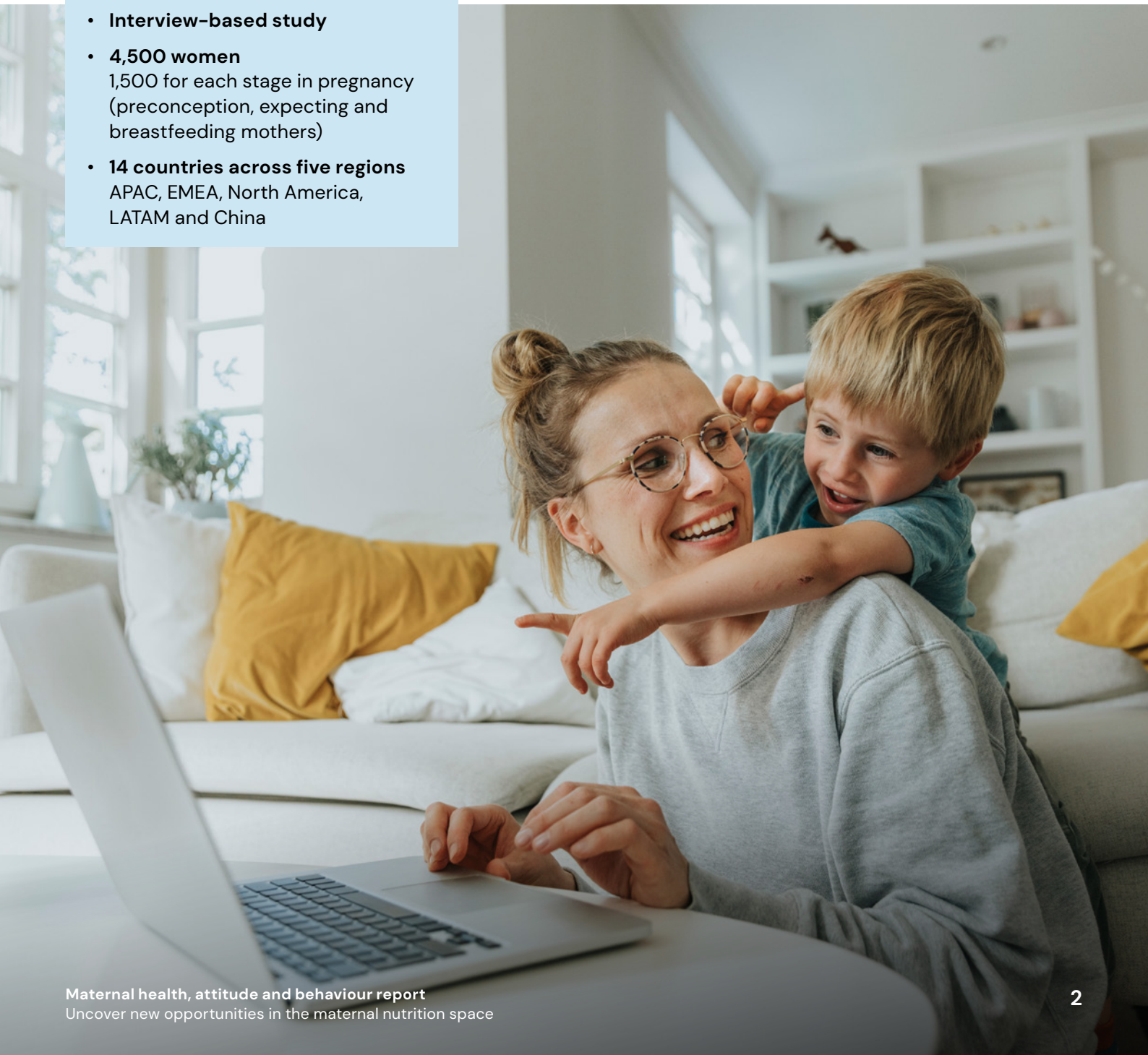
To inspire the development of nutritional solutions that will help mothers and their babies thrive, dsm-firmenich has explored the behaviors and attitudes of women trying to conceive, along with new and expectant mothers, towards health and nutrition at different stages in the motherhood journey.

Because we're passionate about championing the health of women and making sure they have the support they need during one of the most important – and demanding – times in their lives.

The proprietary insights shared in this report can be used to uncover future growth opportunities in the maternal nutrition space. Together, we can enhance your portfolio to meet the latest maternal trends, needs and preferences of mothers around the world.

## Research methodology

- **Interview-based study**
- **4,500 women**  
1,500 for each stage in pregnancy (preconception, expecting and breastfeeding mothers)
- **14 countries across five regions**  
APAC, EMEA, North America, LATAM and China



## What will you learn from the maternal health, attitude and behavior report?

- ✓ Unique insights to inform and shape your next maternal nutrition innovation.
- ✓ The evolving attitudes, behaviors and preferences of women across the motherhood journey:
  - Health concerns of women who are trying to conceive, pregnant or nursing
  - Supplement usage and factors influencing purchasing decisions
  - Opportunities to deliver nutrients in desirable product formats
- ✓ dsm-firmenich's expert recommendations for new developments in the maternal nutrition market.



# Ready to dive in?

Get access to our proprietary insights and support women wherever they are in their motherhood journey.

# Navigating the motherhood journey

From preconception through to breastfeeding, motherhood places heightened physical and emotional demands on a woman. From a nutritional standpoint, meeting the increased requirements for certain nutrients can be hard to achieve, and many new and expectant mothers therefore rely on dietary supplements to reach optimal intake levels. But with so many solutions available, how can brands attract and *fully* support women throughout the motherhood journey?

We look beyond basic nutritional requirements for a healthy pregnancy to consider what other health priorities are top of mind for women across the motherhood journey. By better understanding how women's health goals and concerns evolve from preconception through to breastfeeding, we hope to inspire you to create maternal nutrition solutions that truly meet the needs and preferences of new mothers and mothers-to-be.





# 1 Preconception

## Nutritional support right from the beginning

Optimal nutritional status influences healthy fertility and therefore the chance of becoming pregnant. Nutrition prior to conception helps to establish the best environment to nourish a baby for nine months and the lifelong health of the child. For this reason, women can – and should – take action to prepare the body for the changes it will go through before conception.

**So, what’s most important to mothers-to-be looking to build the foundations for a healthy and successful pregnancy?**

## 1.1 Health concerns

**The emotional ups and downs of trying for a baby weigh heavy on the minds of mothers-to-be.**

Our survey found that anxiety and stress topped the list of maternal health concerns for women trying to conceive, followed by fertility worries linked to how easy they can become pregnant. Looking at health more broadly, energy levels, protection against disease, mental and emotional health and immunity were also key priorities for this group.



**Of women trying to conceive...**

71%

were concerned about **energy levels** and **tiredness**

66%

worried about **anxiety** and **stress**

52%

were concerned about **fertility**

## 2 Pregnancy

### Keeping healthy and happy during pregnancy

A woman's body goes through rapid and significant changes during pregnancy. Good nutrition during this time can help to reduce the risk of pregnancy-related complications, support positive birth outcomes and influence the lifelong health of the baby. **But aside from protecting their baby's health, what other areas of support do women look for during their pregnancy?**

### 2.1 Health concerns

The hormonal changes women experience during pregnancy can affect their sleep pattern, mood, physical appearance and energy levels.<sup>1,2,3</sup>

Indeed, our survey highlighted that anxiety and stress remained the top maternal health concerns for women during this stage – as well as low energy levels and tiredness. This indicates that emotional support is important to women during this transformational period. Nausea and morning sickness were also primary health issues for expectant mothers, and many said they were affected by bodily pain as their baby grew too.



Of women that are pregnant...

72%

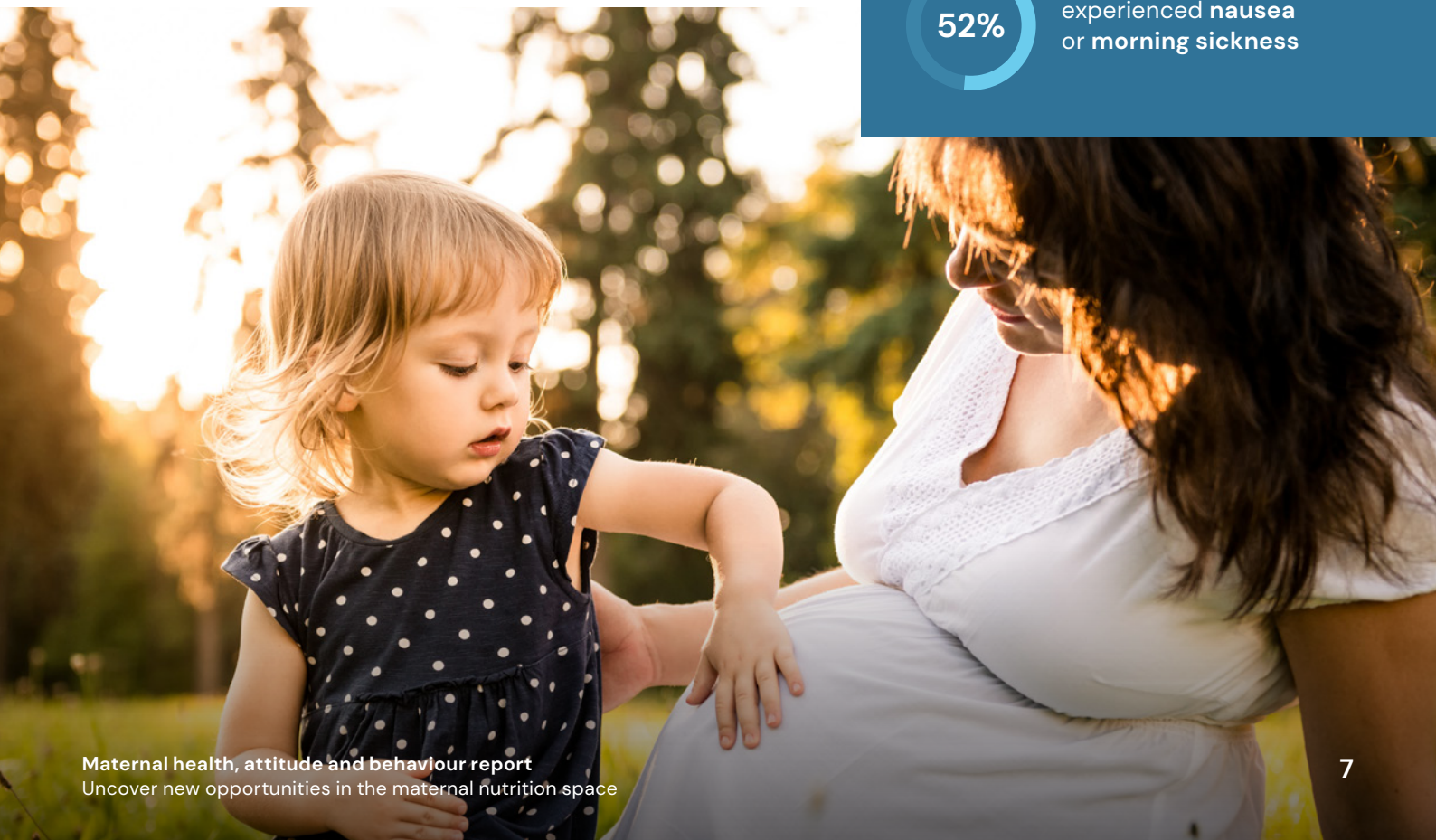
were concerned about energy levels and tiredness

64%

were affected by anxiety and stress

52%

experienced nausea or morning sickness



# 3 Postnatal

## Nurturing new mothers and their babies

Throughout the postnatal phase, maternal nutrition is paramount for recovery after childbirth and to support breastfeeding. Importantly, nursing women must meet their own nutritional needs as well as those of their baby to support healthy infant growth and development. **To address elevated nutritional needs during breastfeeding, supplementation is important. However, it's important not to forget the other postnatal considerations that are front of mind during the early stages of being a new mother.**

### 3.1 Health concerns

As they adjust to a new life with their child, anxiety and stress topped the list of maternal health concerns for new mothers.

For many women choosing to breastfeed, sore or cracked nipples and breast pain were also a significant maternal-related challenge. With postnatal women navigating disrupted sleep patterns, it is unsurprising that energy levels, tiredness and lack of sleep were also general issues for this group.

#### Key findings



**Low energy and fatigue** were the most common general health concerns.



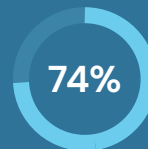
**Anxiety and stress** were the most common maternal health concerns.



**1 in 4** women faced some form of **depression** in their maternal journey.



Among breast-feeding mothers...



experienced **low energy levels and tiredness**



were concerned about **anxiety and stress**



suffered from **sore or cracked nipples**



worried about **low breast milk supply**



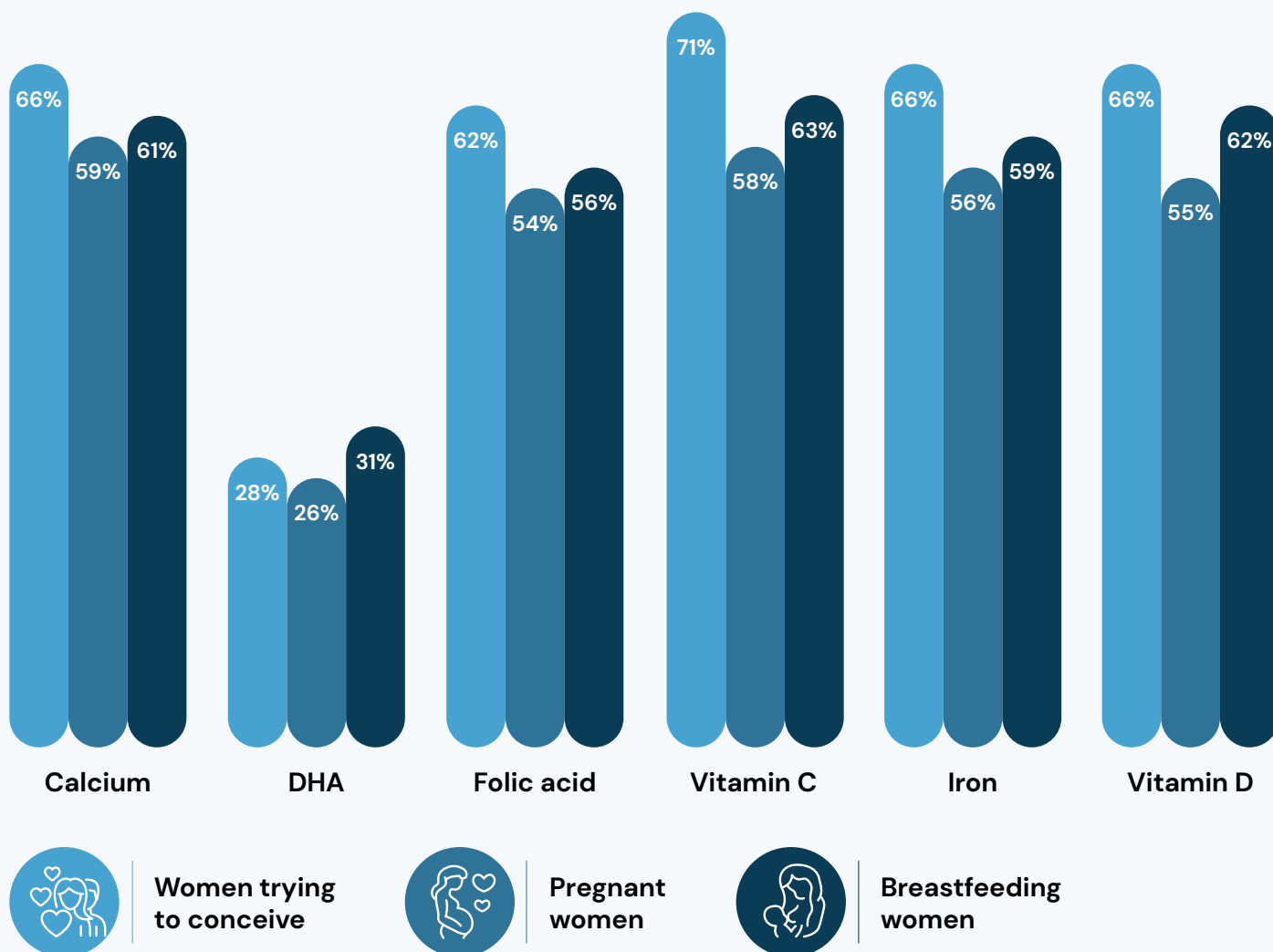
# Ingredient awareness across the maternal journey

## What do women perceive as important ingredients during the motherhood journey?

During preconception, folic acid was perceived to be the most important nutrient. Pregnant women viewed folic acid and calcium to be key nutrients. Whereas new mothers said that calcium was most important to them.

Women at all stages of the motherhood journey identified vitamin C, calcium, vitamin D, iron, vitamin E and folic acid as the ingredients they are most aware of. Other ingredients important for women at this stage in life, such as docosahexaenoic acid (DHA), were less well known.

Figure 1.  
Ingredients awareness across the motherhood journey among survey respondents.



# Attitudes and behaviors towards supplement use, format preferences & purchasing drivers

As part of our study, we investigated current supplement use, perceived benefits and factors driving maternal nutrition purchases.



## How many women take a supplement daily?

40%

of women at the preconception stage

60%

of pregnant women

50%

breastfeeding mothers took a supplement daily

During the preconception stage, women said that maternal nutrition helps to 'lower the risk of genetic defects, preterm birth and neural tube defects' for their baby. They also perceived nutritional products to deliver benefits for fertility, quality egg production and strengthened immune function. Globally, 54% of women during this stage have consumed targeted supplements containing specific nutrients, versus 44% who have taken general supplements. One in three said that they have taken a pregnancy-specific multivitamin supplement.



**3 in 4 women trying to conceive would consider fertility-related supplements and foods.**

**For pregnant women, the benefits of maternal nutrition included 'reduced risk of genetic defects', 'supports healthy brain development' and 'provides balanced nutrition to the growing infant'.**

Pregnant women also considered immunity and the prevention of gestational diabetes to be key benefits supported by pregnancy-specific products. Our insights showed that pregnant women consumed nutritional supplements most regularly – suggesting that women may especially value nutritional support most during this stage of the motherhood journey.

Women in the postnatal period said they take maternal nutrition products to 'support the brain development of their child', 'provide balanced nutrition' and 'strengthen their baby's developing immune system'. Although less likely to consume a supplement than pregnant women, two in five breastfeeding mothers purchased supplements, snacks or beverages to support their health during this stage.



**1 in 2 pregnant women** supplemented their health with a pregnancy-specific multivitamin.



**33% of breastfeeding mothers** chose maternal nutrition products to support healthy brain development in their baby.

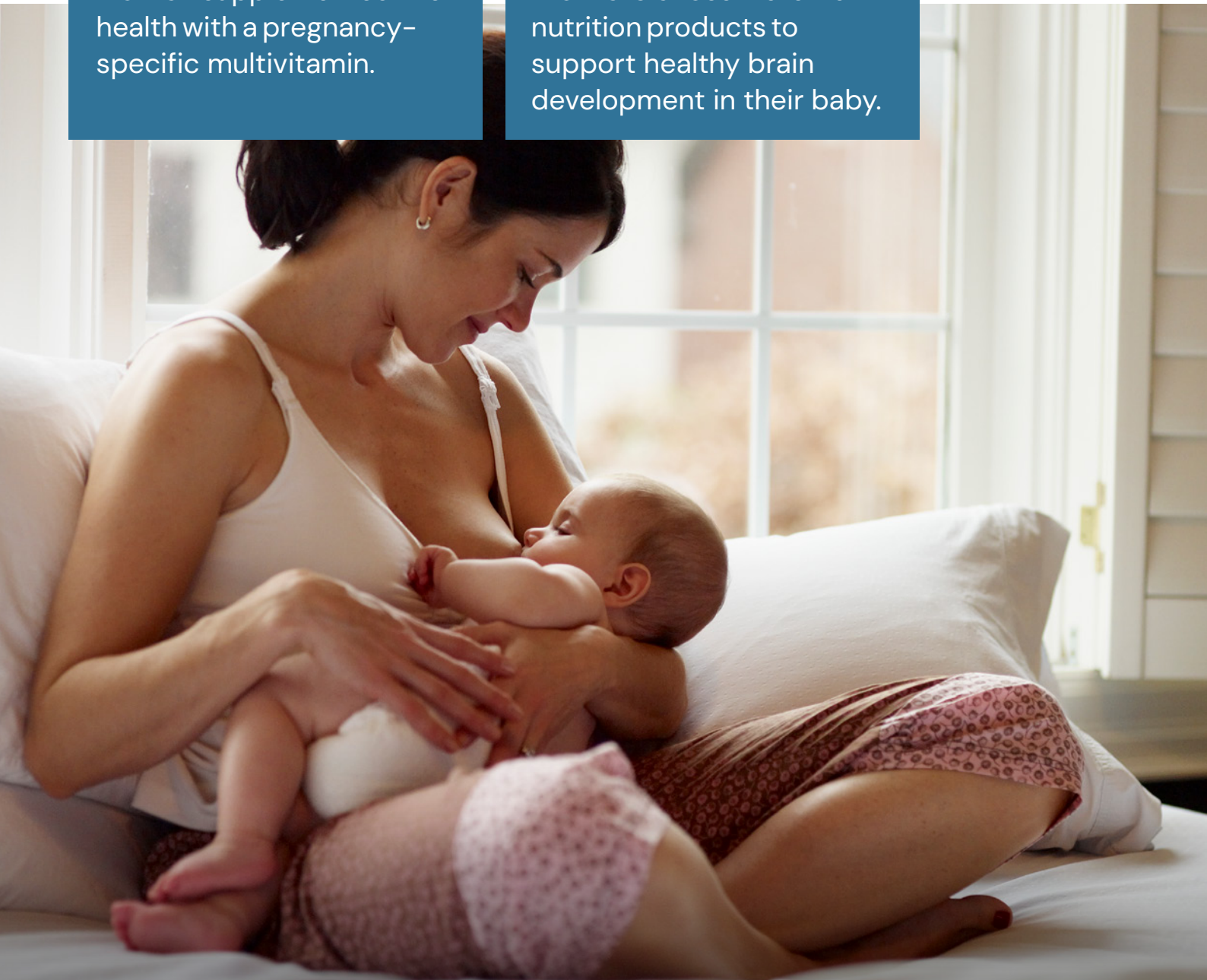
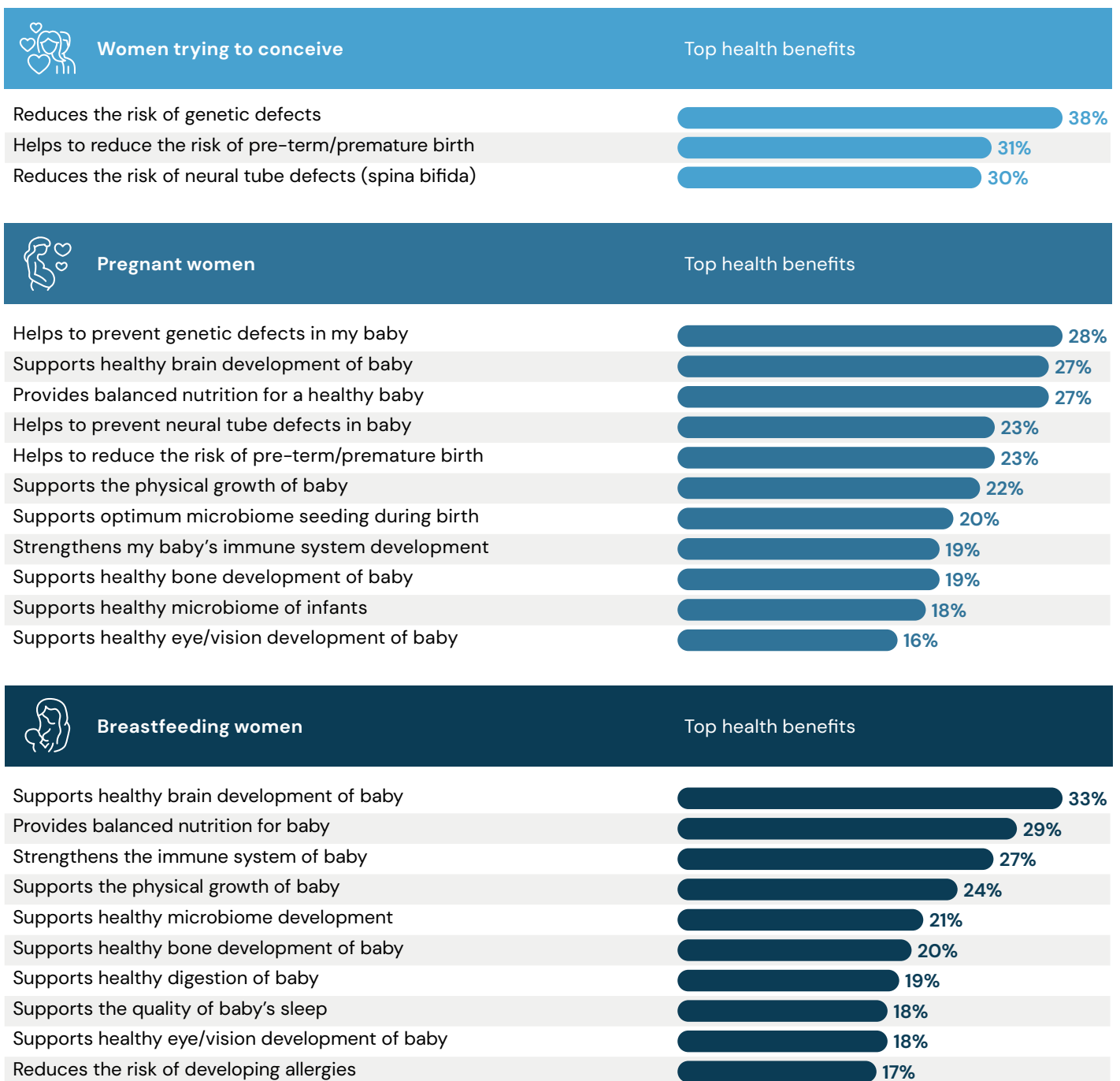




Figure 2.  
**The health benefits women seek for their baby when taking supplements during conception, pregnancy and breastfeeding.**



# Spotlighting format preferences and purchasing influencers



1 in 2 women used online or social media platforms to source information.

32%

of mothers-to-be preferred gummy formats.

Throughout the motherhood journey, medical professionals were by far the top source of maternal nutrition information and product recommendations, followed by online sources and social media platforms.

Family members were also an important influencer of women's maternal nutrition decisions, especially for pregnant women. Additionally, brand trust, high-quality ingredients and science-backed products were high on the list when seeking maternal nutrition solutions.

At the preconception and pregnancy stages, women were most likely to purchase supplements in-store, rather

than online. For busy mothers and mothers-to-be, pills, tablets and capsules were the most widely consumed supplement formats, likely due to their convenience. However, preference was high for gummies, jellies and lozenges across all regions too. This highlights the opportunity to bring appealing, novel formats to the maternal nutrition space.

When asked why they stopped taking a maternal supplement, a medical professionals recommendation, unpleasant taste, the product being too expensive or it "didn't help me" were the most commonly cited reasons. These barriers to maternal nutrition consumption are important considerations for new product development.

Figure 3. What are the elements (if any) that you dislike when consuming a supplement during the motherhood journey?

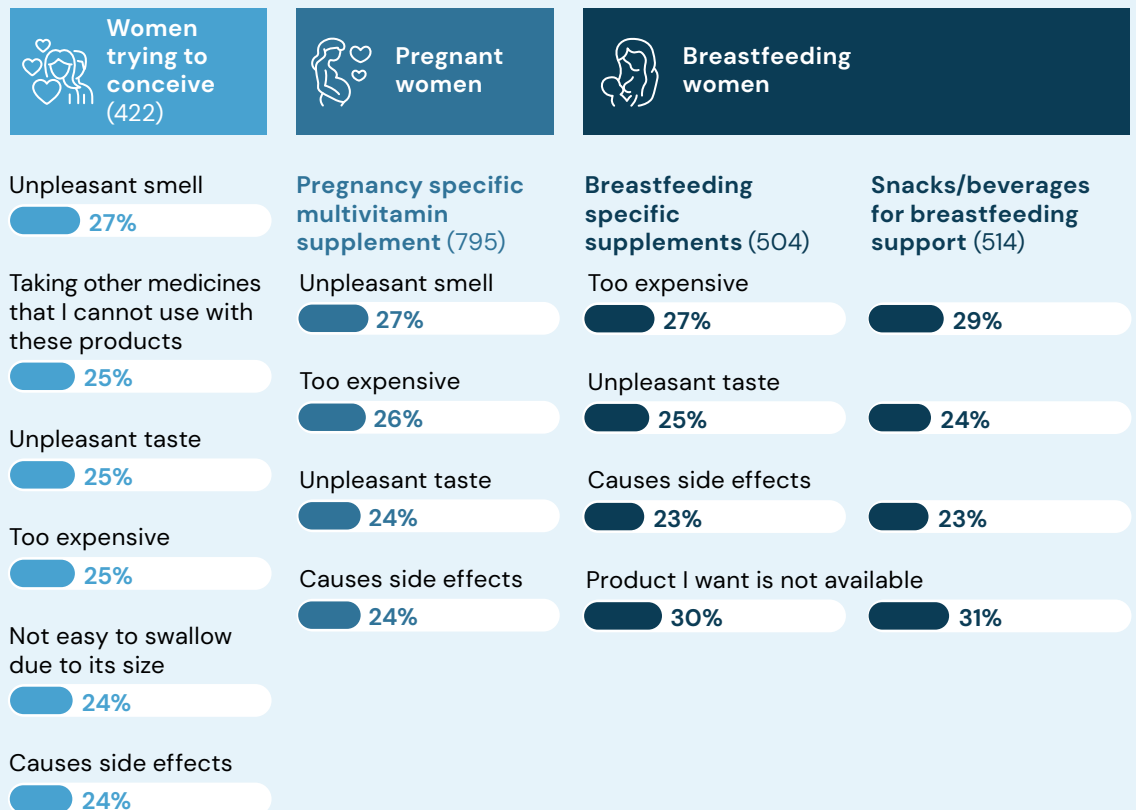
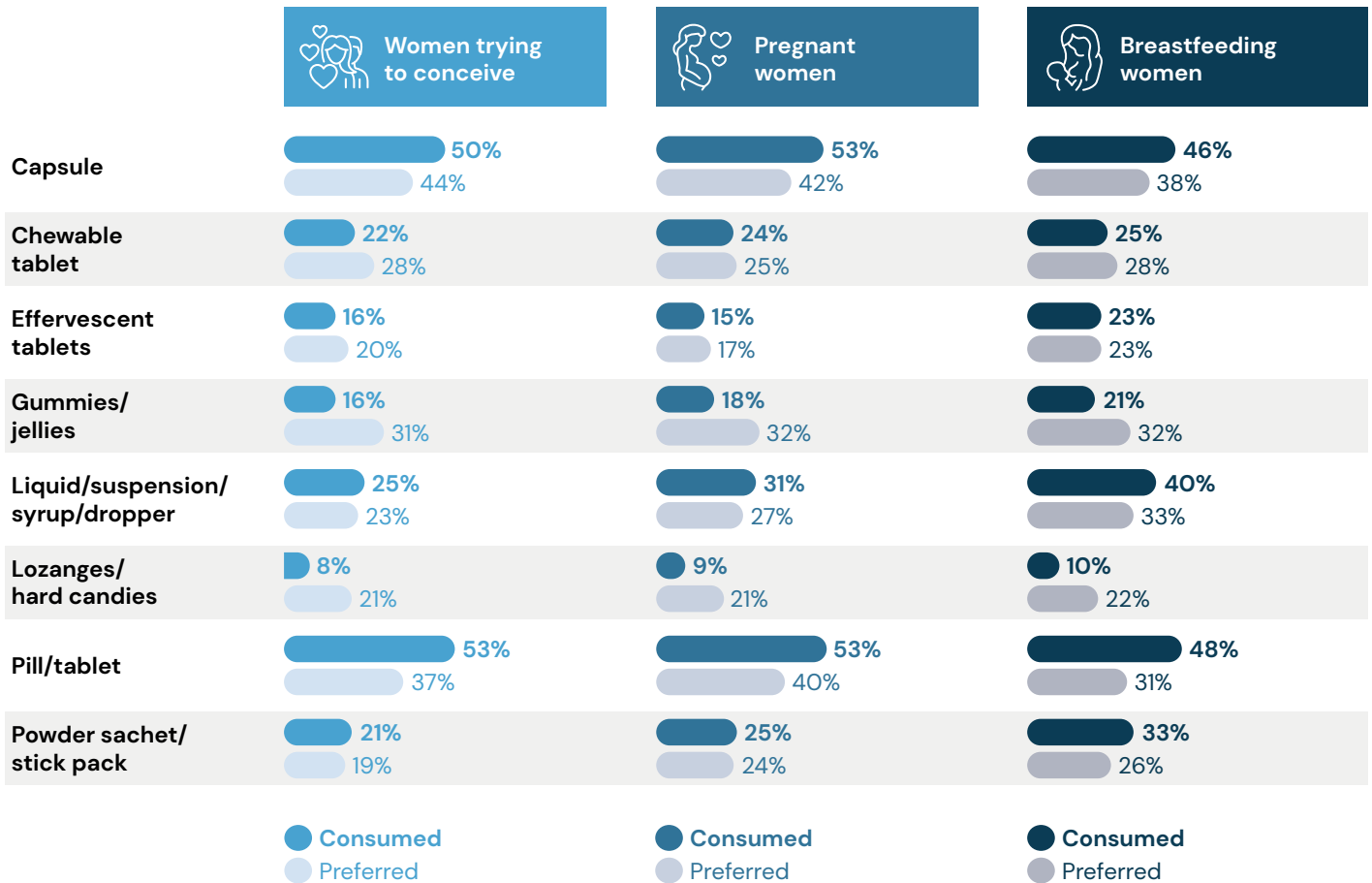


Figure 4.

**What is the format or formulation of pregnancy/breastfeeding supplements you have consumed or are consuming, and what are your preferred formats?**



### Key findings

- For women trying to conceive and mothers-to-be, reducing the risk of genetic defects was the most important benefit to moms. Postpartum, the focus was on healthy brain development and providing balanced nutrition for their baby.
- Medical professionals were the main source of information and top brand choice driver. However, as well as playing a role in the adoption of maternal nutrition, medical professionals can also be a barrier to purchasing specific brands.
- Gummies were the only format with a higher preference versus consumption rate, indicating the growth potential of gummies in the maternal nutrition arena.





# Transforming maternal insights into action: 4 opportunities for innovation

1

## Mental well-being in focus

Women go through many physical and emotional changes throughout the maternal journey – and maintaining good mental health can be challenging. Our study revealed that mental wellbeing is a big worry for women during this period. This creates a space for brands to expand their maternal nutrition offering to support a healthy pregnancy and protect the mental wellbeing of expectant and breastfeeding mothers.

2

## Make ingredient education a priority

Our survey illustrated significant gaps in the knowledge and awareness of important nutrients for optimal maternal health. For example, almost 40% of women at the preconception phase were not aware of folic acid, despite the huge importance of this nutrient during this stage.

To combat this, steps can be taken to improve ingredient recognition and ultimately encourage the adoption of nutritional solutions to support a healthy pregnancy. Given the influence of medical professionals during the motherhood journey, more could be done to provide healthcare practitioners with educational resources and support that can be passed on to mothers. With social media platforms and online sources being another important reference, there is also room to make more maternal nutrition support available online.

3

## Increase supplement usage

Only 40% of women at the preconception stage, 60% of pregnant women and 50% breastfeeding mothers took a supplement daily. This highlights a clear opportunity to reach more women across the maternal journey – especially those trying to conceive – with the nutritional support they need to keep themselves and their babies healthy.

Tapping into key purchasing drivers – and barriers to uptake – could help to support this. For example, clear product information will help women to identify the maternal nutrition product for their needs, while easy to consume products, effective ingredients and a pleasant taste will encourage them to continue taking supplements over the course of their pregnancy, and beyond.

4

## Power product originality

The sensory attributes of a supplement have a key role to play in encouraging ongoing consumption. Gummy formats can help to alleviate barriers surrounding taste and smell – a challenge for some tablet formats – by introducing more appealing flavors. Indeed, with many consumers, including mothers, seeking more enjoyable, convenient and 'fun' ways to support their health, there is an increasing appetite for novel product formats, like gummies, on the market.

# Your partner for maternal nutrition innovation

We're passionate about supporting the nutritional needs of women across the maternal journey for happier and healthier mothers and babies.

We're committed to delivering high-quality, insight-driven, innovative nutritional solutions at every stage of your product's development. **This takes more than ingredients. It takes a partner.**

Partner with  
dsm-firmenich for  
access to our broad  
portfolio of science-  
backed products,  
customized solutions,  
and expert services  
aimed at reliably  
supporting your entire  
product life cycle,  
from concept to  
consumer.

Partner with  
dsm-firmenich

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1. Won. Sleeping for two: The great paradox of sleep in pregnancy. *J Clin Sleep Med.*, 11(6):593-594, 2015.
2. American Pregnancy Association. Mood swings during pregnancy. <https://americanpregnancy.org/healthy-pregnancy/pregnancy-health-wellness/mood-swings-during-pregnancy/>, accessed 29 March 2023.
3. Kumar & Magon. Hormones in pregnancy. *Niger Med J.*, 53(4):179-183, 2012.

