



Understanding caregivers' perceptions and use of follow-up formula and toddler milks in New Zealand and Australia

A qualitative report

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Executive summary

Purpose of the research

This document reports findings from qualitative research conducted for the Ministry for Primary Industries (MPI) in July 2013. The purpose of the research was to understand consumer perceptions and uses of follow-up formula and toddler milks, and the role these products play in the diets of infants and young children aged six to 36 months in Australia and New Zealand.

Methodology

Online qualitative research was conducted with a total of 137 caregivers in Australia and New Zealand. Caregivers included in the research had at least child aged between six and 36 months. Separate forums were established for caregivers that used formula products and toddler milks and caregivers who did not use these products. The research took place in July 2013.

Summary of findings

Note the following findings directly answer the research objectives and full detail is contained within the body of this report.

When and why caregivers are introducing follow-up formula and toddler milks into the diets of their six to 36 month old children, and how are they used as a component of the child's diet?

Deciding to use formula products – timing and circumstances

Caregivers who use formula products are introducing them into their child's diet at differing ages and for differing reasons. Those who introduce at the infant formula stage tend to do so as a replacement for breast milk. Those who introduce at the follow-up formula or toddler milk stages do so for different reasons. These are detailed below.

- **Early starters.** These are caregivers who are typically introducing infant formula from birth to 6 months of age. The main reason for this is inability to breast feed, or inability to provide enough breast milk. Caregivers who start when their child is under about 6 months old do so mainly for this reason. They use infant formula or follow-up formula as a primary source of nutrients for their child. They tend to introduce follow-up formula or toddler milks as a continuation of this practice.
- **Later starters.** These are caregivers who tend to start using formula products after their child reached six months of age. The reasons for starting at this time include weaning from breast milk, or reducing the amount of breast milk offered. They may also be returning to work or develop low milk supply. Late starters tend to have breast fed to some degree earlier, in contrast to early starters, who have not been able to breast feed.

Formula usage as a component of diet differs by age

- **Under 6 months old.** Caregivers are using formula products (infant formula) as either an addition to breast milk, or a full replacement for breast milk. Whether they feed it exclusively or as a supplement, caregivers consider infant formula provides the full nutritional needs for their child.
- **6 to 12 months old.** Caregivers may be using infant formula or follow-up formula at this age (they use both formula products in the same way). Again, caregivers may be providing infant formula or follow-up formula in addition to (supplementary), or as a full replacement for breast milk (primary). Some are also introducing the formula product as a component of foods as they introduce solid foods into their child's diet. Cow's milk is not generally introduced prior to the child being 12 months old.
- **12 to 24 months old.** Caregivers are using follow-up formula or toddler milks for supplementary nutrition and as a beverage at this stage. As their child gets older and is eating a wider range and a sufficient volume of solid foods, follow-on formula and toddler milks tend to be used as a beverage and nutrition source at these age stages. Many caregivers use follow-up formula and toddler milks at this stage to provide comfort (as a familiar taste) to their child. Volume of consumption tends to decrease, as children at this age are gaining sufficient nutrients from other sources (such as food and cows' milk).
- **24 to 36 months old.** Caregivers are using follow-up formula and toddler milks in similar ways to those with a child in the 12 to 24 month age range. However, there are indications that usage volume and frequency decreases during this age range.

How caregivers are feeding these products (e.g. How often? In what form? In what quantities? As a replacement for breast milk or cow's milk?)

The research indicates that caregivers use formula products either as a primary or a supplementary source of nutrition and as a beverage. Typically formula products are used as a primary source of nutrition in the younger age range up to 12 months old, and as a supplementary source from 12 months onwards.

Formula frequency and volume trends by age range are as follows:

- **Children under 12 months.** Caregivers who use formula products are providing these products as either as a complete or partial replacement for breast milk. The maximum number of bottles at this age is about five to six, each around 120ml to 200mls each. The frequency of provision varies greatly per child, but tends to follow a pattern around sleeping patterns and mealtimes and whether the caregiver is also breast feeding.
- **Children 12 to 24 months** Caregivers with children aged 12 months to 24 months old are generally providing follow-up formula and toddler milks according to two feeding style – the first style is as a primary source of nutrition as a replacement for (or in addition to) breast milk. This style this usually occurs closer to 12 months age. The second style is as a supplementary food as a replacement for cow's milk (as the child ages from one to three years old). Some caregivers will also still be breast feeding and using follow-up formula or toddler milk as a top up or supplementary to this. Most children in this age group are consuming one to three bottles per day of about 100ml to 180mls. Volume and frequency of formula product provision tend to decrease as the child ages and the role of formula products transitions from a complete meal replacer to a milk based beverage in a diversified diet. From 12 months onward children are fed solid foods in addition to milk-based feeds.

- **Children 24 to 36 months.** Caregivers are providing formula products as a supplementary source of nutrients only at this age range. As their child is also consuming cow's milk (if tolerated), and a range of foods, most children are only consuming one or two bottles per day of around 120 to 150 - 180mls. The frequency of provision varies greatly per child depending on the role of the product in the overall diet.

Caregivers in the forum provide formula products reconstituted as per the preparation guide, in a bottle for the child to drink. Some also use formula products as a component of food, starting at around 6 months of age. However, once the child turns 12 months old, caregivers will tend to use cow's milk (instead of formula) as a component of food. The main exception to this is when a dairy intolerance is present or suspected.

Do caregivers differentiate between infant formula, follow-up formula and toddler milks?

Caregivers differentiate between the different stages of formula. The main difference they perceive between the stages is the nutritional composition, which they perceive is optimised by manufacturers for each age and stage. Caregivers tend to refer to formula stages in the following ways:

- stage (e.g. stage 1 or stage 2),
- age range (e.g. from birth to 6 months), and
- product name (e.g. infant formula, follow-up formula or toddler milks).

Caregivers tend to perceive infant formula as different in composition to follow-up formula and toddler milks (which are perceived to be similar in composition to each other). They perceive:

- **Infant formula** – contains the full range of nutrients required for babies up to 12 months old. This means it can be used as a complete (main) source of nutrients for a baby of this age.
- **Follow-up formula** – contains age-formulated nutrients to suit babies between 6 and 12 months.
- **Toddler milks** – contains some specific nutrients (such as additional iron and protein) for children aged between one year and up to 36 months.

Caregivers tend to regard follow-up formula and toddler milks as more similar to each other than infant formula. This is because infant formula is perceived to provide a more complete range of nutrients than the other two stages.

While caregivers might continue to use a formula stage beyond the age range specified, they will generally tend to move to the next stage if they decide to continue to use formula products. However, the exact age of transition between each stage tends to be fluid, and some caregivers can delay the transition for fear of digestive upsets or palatability changes.

Where do caregivers get information or advice about these products to inform their decisions about starting these products or choosing between brands?

Caregivers seek information about whether to use formula products, as well as which formula product (brand and type) others recommend. They tend to do this research pre-purchase. They seek information from both medical/professional sources, and other caregivers with experience using formula. Their information needs centre around which is the best substitute for breast milk (particularly important for early starters who need to use formula products as a replacement for breast milk). Caregivers also seek information about the effect of formula on their baby (for example, does formula cause constipation, wind or other digestive issues).

Other pre-purchase information channels include websites such as Plunket or manufacturer's websites. If their child was provided formula in hospital (particularly for premature babies), caregivers tend to use the brand and type of formula that their child received at that time. All these sources of information have a strong influence on initial purchase, as caregivers rely strongly on recommendation from others. Ultimately the child's acceptance of the formula was the key driver continue usage or change formula product.

How do caregivers make purchasing decisions for these products (e.g. do they always choose the same product/brand? What are they looking for?)

Caregivers tend to continue to purchase the same brand over time in order ensure consistency for their baby. This can start with some trial and error, particularly for caregivers with a baby who is fussy, has allergies, or rejects a range of brands of formula products. Once they have selected a brand that others have recommended, and that their baby will accept, caregivers aim to purchase this brand throughout the stages (for example, they will graduate through the brand from infant formula, follow-up formula to the toddler milks in that range).

There are some instances of trading down from the gold version of a brand or of another non-caregiver purchasing the 'wrong' brand, but for the caregivers in the forums offering a consistent product for their child is their main aim. As long as their child will drink the product, has no adverse effects, and is thriving, caregivers will not generally consider purchasing or trialing other brands.

How are caregivers using labelling information (e.g. Is there sufficient information? Are the feeding guides followed?)

Label information is primarily used to identify their preferred formula product within the store Both Australian and New Zealand-based caregivers feel the age, brand, and product description are the most useful parts of the label. Some also refer to the ingredient list, particularly if their child has allergies, or they wish to avoid excess sugar or salt.

Caregivers tend to rely more on the information on the label in the early days of using the product, or if they change brand, move up a stage, or change type (for example, they purchase a soy or goat's milk formula product). The preparation instructions and feeding guidelines are seen as particularly important when feeding a newborn (under six months) as well as when initially starting to use formula products, They feel it is important for both hygiene and health reasons to prepare formula according to the instructions.

Caregivers refer to the feeding guide to provide an indication of how much formula to provide their child. Similar to the preparation instructions, this part of the label tends to be referred to only when a caregiver is initially starting to provide formula products. The feeding guide is perceived as less useful by caregivers who are mix feeding (a combination of breast milk and formula products) as they perceive the guide is only relevant for those who are only using formula throughout the day. Some caregivers are skeptical about the feeding guide, seeing it as a marketing ploy, rather than a valid indication of amounts to feed their child. Caregivers have no concerns about the adequacy of the feeding guide information. Once caregivers are familiar with the preparation and feeding guidelines, they rarely need to refer to the information on the label.

Background and research objectives

Background

The current Codex standard for Follow-up Formula (FUF) was issued in 1987. Since then, there have been significant changes in the use and marketing of formulas covered by this standard. As such, the current standard is considered outdated.

The Ministry for Primary Industries (MPI) is leading the Codex Alimentarius review of the Follow-up Formula (FUF) standard. Food Standards Australia New Zealand (FSANZ) will be undertaking a review of the Standard 2.9.1 – Infant Formula Products of the Australia New Zealand Food Standards Code. Research on consumer usage and understanding of these products is required to inform both of these reviews.

The research will be used to understand consumer perceptions and uses of follow-up formulas and toddler milks, and the role these products play in the diets of infants and young children aged six to 36 months.

Colmar Brunton was commissioned to undertake this research in March 2013.

Research objectives

The specific research objectives are to understand:

1. When and why caregivers are introducing follow-up formulas and toddler milks into the diets of their six to 36 month old children, and how are these products used as a component of the child's diet?
2. How caregivers are feeding these products (e.g. How often? In what form? In what quantities? As a replacement for breast milk or cow's milk?)
3. Do caregivers differentiate between infant formula, follow-up formula and toddler milks?
4. Where do caregivers get information or advice about these products to inform their decisions about starting these products or choosing between brands?
5. How do caregivers make purchasing behaviour of these products (e.g. do they always choose the same product/brand? What are they looking for?).
6. How are caregivers using labelling information (e.g. Is there sufficient information? Are the feeding guides followed?)

Methodology

This section summarises the qualitative methodology used to undertake this project, including the research approach, the online methodology, sample frame, recruitment and the structure of the topic guides.

A full breakdown of the sample and further explanation of the online tool are provided as an appendix to this report.

An online qualitative approach

Qualitative methodologies are employed where the research questions and topics are exploratory in nature and where little (or not enough) is known about a target audience to develop a meaningful questionnaire. A qualitative methodology was determined appropriate for this research project, as MPI needed to explore and understand how caregivers use and perceive follow-up formula and toddler milks.

An online discussion forum, called an e-Qual was used to conduct this research. This allowed Colmar Brunton to include a wide range of caregivers to share their opinions, thoughts and experiences about follow-up formula and toddler milks. Caregivers were recruited nationwide in both New Zealand and Australia. Caregivers gave themselves a username within the forum, which allowed them to provide candid comments that using their real name might inhibit.

Caregivers were able to log in to the forum at their convenience (i.e. at a time that worked for them), as the questions were available to them continuously once they were released. Caregivers could also see comments that other contributors were making, allowing discussion and conversation about many of the perspectives that they had in common.

Three e-Equals were conducted with different types of parents and caregivers:

1. **Users** of formula in New Zealand
2. **Users** of formula in Australia
3. **Non-users** of formula in both New Zealand and Australia.

The limitations of qualitative research

Note that while qualitative research can understand the views and perceptions of a range of people, it cannot provide a measure of the proportion of people who hold these views. It also does not allow robust analysis of these views or opinions by demographic characteristics. In order to provide this demographic analysis a larger quantitative survey would need to be conducted. This research is intended to explore and identify themes (such as caregivers' perceptions of the role of formula products), rather than profile individual caregivers and their specific demographic characteristics.

Sample limitations

The total sample of caregivers who took part in this research is 137. A larger number of caregivers with children in each of the three age ranges (6 to 12 months, 12 to 24 months, and 24 to 36 months), was recruited. However, due to dropouts, a smaller number of caregivers with children aged 24 to 36 months took part in the forum. The full sample of caregivers by age of child is detailed below and a more detailed breakdown (of both the number recruited and the final number of participants) is appended to this report.

Qualitative analysis

The comments from the forum were analysed by two senior qualitative researchers in order to answer the research objectives. Any differences or similarities by age of child consuming formula, location, or users versus non-users are noted within this report.

While an e-Qual methodology collects demographic data from caregivers, the primary purpose of this is to ensure a range of caregivers take part in the research. However, key questions were analysed by the three main demographics characteristics: age of child using formula, location, and user or non-users.

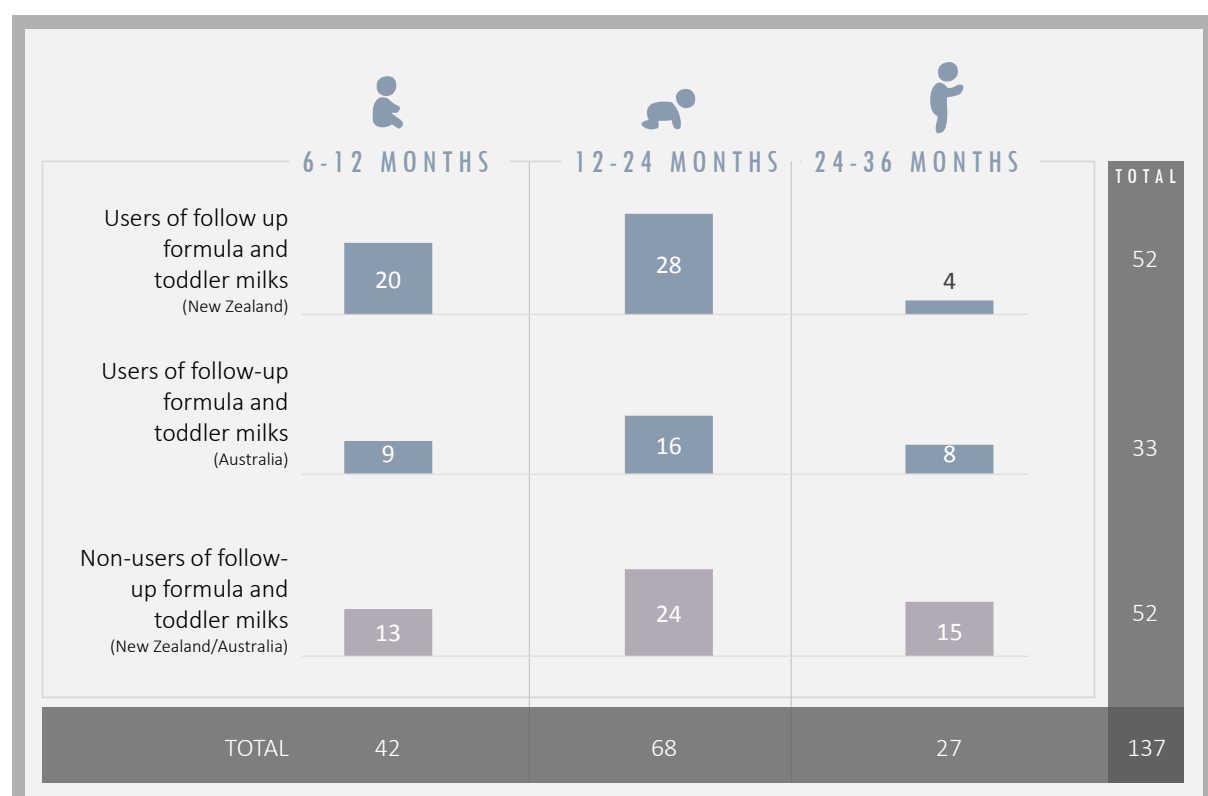
Attitudinal themes

Parts of this report (the section on perceptions) use attitudinal differentiation to determine caregivers attitudes to the use of formula products. These attitudes were identified as themes that exist in the market, and are not attributed to individuals. In addition, attitudes are modal, and can vary based on circumstances, daily routine or other factors. This research does not mention the size of each attitudinal segment or the demographic characteristics of each segment. A quantitative survey would be required to achieve this.

Sample structure and participant sources

Caregivers for the three e-Quals were recruited by online panel and a screening survey to determine their eligibility to take part. The table below illustrates the final sample for this project.

Table: total sample of caregivers in New Zealand and Australia



A full breakdown of this sample by each forum is attached as an appendix to this document.

Caregivers had to meet specific criteria to become a forum contributor, regardless of the forum they were recruited for. They were screened online to ensure they qualified, including questions about:

- Are they based in New Zealand or Australia?
- Are they the main caregiver for at least one child aged between six and 36 months?
- What is their relationship to the child/ren?
- What are the child/ren's childcare arrangements?
- What type of food do they provide the child/ren?
- If they do not use formula, have they ever used it?
- Demographic information:
 - Employment situation
 - Income
 - Age
 - Ethnicity
 - Location.

Caregivers were sent a secure link to the online forum once they were identified as qualified to take part.

Fieldwork and topic guide structure

The three forums took place in early July 2013. Note the fieldwork was completed prior to the time that media reports about botulism contamination in whey protein used in formula products were in the public domain.

Two topic guides were developed to answer the objectives for MPI:

- One guide was aimed at caregivers **who use formula**. This guide contains a series of questions that were released daily to contributors over a three-day period.
- The other guide was aimed at caregivers **who do not use formula**. This guide contains four questions that were released for a one-day forum.

The two types of caregivers were separated to ensure that each forum was relatively homogeneous. The main reason for this was to ensure questions were relevant for each of the caregiver groups.

The structure of the two topic guides is detailed below and the full topic guides are appended to this report.

Topic guide structure for caregivers using formula products

The three-day forum for formula users was structured as follows:

- Day 1
 - Different types of formula and toddler milks available – choosing one over another
 - Formula/toddler milks feeding habits of the child/ren
 - Purpose of feeding formula or toddler milks

- Day 2
 - Rationale for the child first starting out formula/toddler milks
 - Finding out about formula/toddler milks and deciding which one was best for the child at the time
 - Over time, deciding what formula/toddler's milks are suitable for the child
- Day 3
 - Information conveyed by the label and its usefulness
 - Using the label information at home
 - Feeding guide – how caregivers use it
 - Preparation guide – how caregivers use it.

Topic guide structure for caregivers who do not use (or no longer use) formula products

The one-day forum for non-users (including lapsed users) was structured as follows:

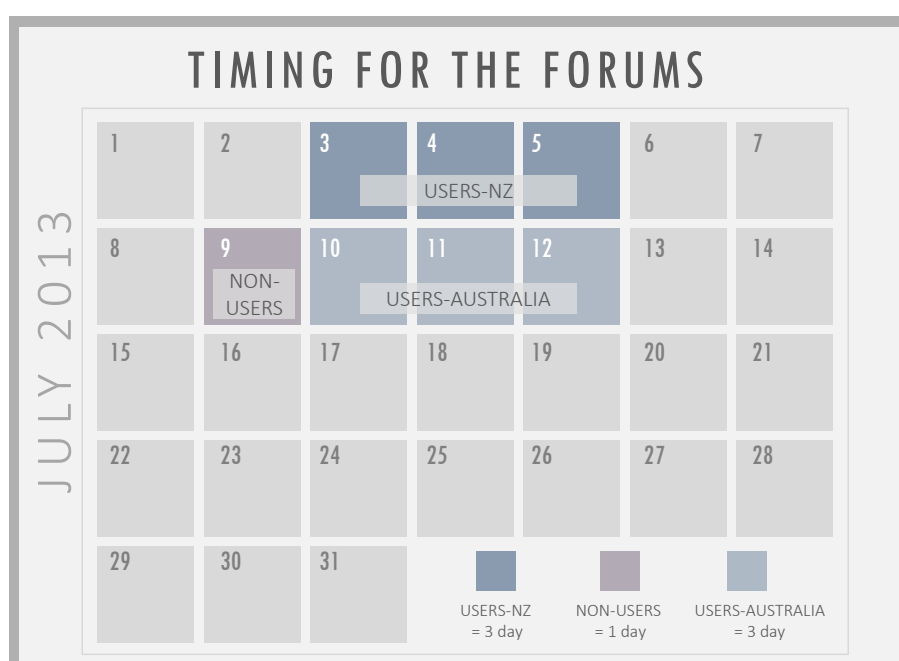
- Day 1:
 - Rationale for not feeding their child follow-up formula or toddler milks
 - Thoughts and perceptions about follow-up formula and toddler milks.

Note the non-users questions were partitioned between non-users (never) and non-users (lapsed). Caregivers were asked slightly differently worded versions of the questions, and neither group could see responses from the other group. This was done in order to avoid any debate about whether formula was acceptable as a breast milk substitute.

Timing

The diagram below provides the dates of fieldwork for each of the three forums.

Diagram: fieldwork dates



Notes to this report

Analysis and groupings

Throughout this report the term caregivers refers to all caregivers in the research. Any differences by caregivers are highlighted where appropriate (for example a theme that might only have arisen for caregivers with younger children will be identified as such). These themes are identified in the text and should be considered an indication only of any differences between caregivers (as these have not been measured). Where there is no mention of differences, the reader should assume analysis has identified no differences.

Actual versus reported usage

At the time of recruitment, caregivers who use formula products were asked to identify whether they used infant formula, follow on formula or toddler milk¹. This response was coded and 'tagged' to their profile from the recruitment screener and into the forum. Most caregivers correctly identified the stage of formula they were using at recruitment. However, during the user's forum caregivers were asked to specify the brand, product name and stage of the formula they were currently using and/or upload a photo of the formula product. In the small number of cases where the formula product description differed in the response to this question to the initial recruitment questionnaire, Colmar Brunton has used the formula stage identified by the caregiver in the forum rather than the formula stage noted at recruitment. For example, some caregivers coded 'infant formula' at recruitment, but later realised (or Colmar Brunton identified from their comments) that their child was actually using follow-up formula or toddler milks. This anomaly has been addressed at the analysis stage and noted in the verbatim comments if it is confusing.

In cases where the stage used is unclear or a brand is 'all stages' this has been noted in the text. Detailed discussion of caregivers' usage practices is included in the section on usage.

Staging definitions

For the purposes of the research and analysis, definitions of stages and age ranges are based on label descriptions which have been used by caregivers.

The following stages and age ranges have been used:

- **Infant formula** – from 0 months. Infant formulas are products suitable from birth up to 12 months old. Typically they are labelled as suitable up until six months, and this is generally the age range that caregivers using 'standard' formula products perceive it is suitable for. However, some formula products are labelled as suitable for up to 12 months of age. Specialised products such as lactose-free formula are often labelled 'all stages'.
- **Follow-up formula** – from 6 to 12 months. Note that at this age range both infant formula and follow-up formula are regulated for infants. Caregivers can provide either product for their child during this period.
- **Toddler milks** – from 12 months onwards (up to 36 months).

¹ Caregivers checked a list of a range of formula products in the recruitment screener to indicate whether or not they used a product.

Reference terms

Throughout this report the following terms are used:

- 'formula products' refers to infant formula, follow-up formula or toddler milks. In instances where it is necessary to differentiate between stages, then 'follow-up formula' and 'toddler milks' has been used.
- 'caregivers' refers to all caregivers in both New Zealand and Australia.
- 'users' refers to caregivers who currently use formula products.
- 'non-users' refers to caregivers who do not currently use formula products.
 - 'lapsed users' refers to caregivers who may have used formula products in the past, but do not currently
 - 'never used' refers to caregivers who have never used formula products at all for any of their children.

Any differences by group (for example by country, age of child, or user or non-user) are highlighted in the text where appropriate.

Use of verbatim comments

Verbatim comments from the forum are used throughout this report to illustrate key findings. These are attributed by:

- Type of caregiver (mother, father, other relative)
- Usage (user or non-user of infant formula, follow-up formula or toddler milks)
- Location (country and region or city)
- Age of youngest child consuming formula
- Type of formula used (if user) – noting if this is follow-up formula, toddler milk or an all stages type.

Detailed findings

Perceptions of follow-up formula and toddler milks

This section describes what caregivers perceive are:

- The purpose of follow-up formula and toddler milks
- The differences (if any) between infant formula, follow-up formula and toddler milks
- The perceived strengths and weaknesses of follow-up formula and toddler milks.

Purpose of follow-up formula and toddler milks

Follow-up formula and toddler milks most commonly provide additional nutrition as a supplement to children's diets

Caregivers perceive the purpose of follow-up formula and toddler milks as providing children with the nutrients required for their age.

"Purpose of formulas is to give the baby nutrients required for the stage of life they are at."

[User (mother) Australia (Perth), 12 to 24 months, follow-up formula]

"The purpose of them is to make sure the baby/toddler is getting all the nutrients they need as they grow."

[User (mother), New Zealand (Hamilton), 6 to 12 months, infant formula]

Caregivers most commonly see follow-up formula and toddler milks as a supplement or top-up to children's diet (e.g. to breast milk, cow's milk, and/or solids). This is because children aged six months to three years are (or are starting to) eat a wider range of foods, but may still require additional nutrients to grow

Some caregivers consider that formula products are not always necessary, unless the child has an unbalanced diet. These caregivers consider formula products useful for these children.

"If a child has a balanced diet, I don't think there is a need for formula, but then I don't think most children have a balanced diet. So, formula can be a good way to help support a child's diet."

[Lapsed user (mother), Australia (Queensland), 12 to 24 months]

There are some situations where caregivers consider the purpose of follow-up formula and toddler milks as a replacement product. For example, it might be to replace:

- Snacks (e.g. morning or afternoon tea)
- Cow's milk, due to lactose intolerances/allergies or if the child does not like the taste of cow's milk
- Occasional meals when the child is feeling unwell.

“One bottle is a meal at this stage, that is afternoon tea. I will be replacing this with food fairly soon, when I feel she is ready.”

[User (mother), Australia (Sydney), 12 to 24 months, infant formula]

“She drinks this instead of cow’s milk, because she has an intolerance to cow’s milk.”

[User (mother) New Zealand (Auckland), 12 to 24 months, toddler milk]

“We do not feel the need for formula very much anymore. We like to keep it up, though, because when he is going through teething, separation anxiety etc. and goes off his food for a day or two, we figure at least he is getting something good into his tummy until he’s ready to eat again!”

[User (mother), Australia (Brisbane), 12 to 24 months, toddler milk]

Caregivers perceive infant formula has a broader role than follow-up formula and toddler milks. Infant formula may be a supplement or a complete replacement to breast milk. In the case of replacement, caregivers perceive infant formula’s role is to provide a child’s entire nutritional needs.

We began to add a formula feed around lunch time, as my daughter was consuming breast milk at least every two hours throughout the day and emptying them a lot I decided to add these formula feeds just to give my body a break and a little bit more time for my supply to refill.”

[User (mother), Australia (New South Wales), 6 to 12 months, follow-up formula]

*“She (drank) formula **instead of** breast milk when she was young, as due to my health issue, I couldn’t breast feed.”*

[User (mother), New Zealand (Auckland), 12 to 24 months, toddler milk]

Users differentiate between infant formula, follow-up formula and toddler milks

Caregivers who use infant formula, follow-up formula and toddler milks differentiate between the range of products that exist. The main area of differentiation is stage, followed by type and gold versus standard formulas. They also identify a range of formula brands that exist in the market.

Differentiation by stage

When differentiating between formula products, caregivers use differing terminology to discuss the product they buy. Some use:

- **stage** (e.g. stage 1 or stage 2),
- **age range** (e.g. from birth to 6 months), and
- **product name** (e.g. infant formula, follow-up formula or toddler milks).

Each of these terms caregivers use differentiate between the three stages of formula products and is a clear indication that caregivers take note of the stage.

Caregivers perceive differences in composition between the stages. These are:

- **Infant formula** – contains the full range of nutrients required for babies up to 12 months old. This means it can be used as a complete (main) source of nutrients for a baby of this age.
- **Follow-up formula** – contains age-formulated nutrients to suit babies between 6 and 12 months.
- **Toddler milks** – contains some specific nutrients (such as additional iron and protein) for children between one year of age up to 36 months of age.

Caregivers tend to regard follow-up formula and toddler milks as more similar to each other than infant formula. This is because infant formula is perceived as a product that can serve as the sole source of food for an infant. Follow-up formula and toddler milks are not perceived as a product suited to perform this function.

Caregivers accurately identify the actual age each stage of product. They purchase the stage that matches their own child's age.² This is mainly because they want to know they are buying the correct stage for the age of their child. Caregivers want to be sure they are:

- Providing the best for their child nutritionally
- Not putting their child at risk of becoming ill.

"I think it's important to use age appropriate formula as babies' and toddlers' needs are different. Toddlers need more energy and more iron."

[User (mother), Australia (Sydney), 12 to 24 months, all stages formula]

"Age info is important to me because I have noticed the differences in the composition of formula between the different stages, for example, regarding the percentage of protein etc. I trust that the manufacturers make formula best for each age so I like to stick to that."

[User (mother), New Zealand (Dunedin), 12 to 24 month, follow-up formula]

"Age information is obviously important for a general guide of feeding ages. We surely do not want to feed a newborn baby formula that suits a toddler. That would cause serious troubles to their tiny little tummy."

[User (mother), New Zealand (Auckland), 12 to 24 months, toddler milk]

"Stage formulas are for babies a certain age. So stage 1 is for less than 6 months, stage 2 is for 6 to 12 months, and stage 3 is for one year plus."

[User (mother), New Zealand (other North Island location), 12 to 24 months, toddler milk]

Many caregivers understand that the different stages comprise different nutritional contents to meet the varying dietary needs as the child grows. Some caregivers are more concerned than others about ensuring their child is consuming the correct stage for their age. Usage is discussed in more detail in the section of this report on product usage.

"In terms of using one over another, I guess we need to choose a formula that's age appropriate (e.g.. infant, follow-on [formula] 6 months and toddler...), because the content changes slightly."

[User (mother), Australia (New South Wales), 12 to 24 months, follow-up formula]

² Note that later it is noted that caregivers have some 'leeway' transitioning between the stages, so there may be about a two month 'lag' in the stage of product they are using, and the age of their child.

Differentiation by type, gold versus standard, and brand

Type

Some caregivers believe the main difference between formula products and milk products is the type of products and what it is manufactured from (e.g. soy beans, or goat's milk). They identify a range of types, including types for allergies or intolerances, and reflux.

"There are so many different available formulas in the market and I don't think that they do differ from one another, except for those babies that have dietary needs or are lactose intolerant."

[User (mother), Australia (Brisbane), 24 to 36 months, toddler milk]

"There are also formulas like soy and goat for babies with allergies or intolerances."

[User (mother), New Zealand (other North Island location), 12 to 24 months, toddler milk]

Gold versus standard formulas

Caregivers recognise there are gold and standard formula products on the market. Some caregivers are more likely to perceive there is a difference between gold and standard products. Those who believe there is a difference consider the gold varieties have additional advantages, such as greater nutritional benefits and are kinder on a child's digestive system.

"I particularly use and like the Karicare gold or s26 gold, as it is easier on my baby's tummy and gives her all the stuff she needs to grow and have a great start in her development."

[User (mother), New Zealand (Auckland), 6 to 12 months, follow-up formula]

"I personally chose Aptamil Gold as it has added fish oil."

[User (mother), Australia (Melbourne), 12 to 24 months, toddler milk]

Other caregivers, who may be less convinced about the difference doubt the claimed benefits are worth the additional expense of gold varieties.

"I started using the Karicare Aptamil Gold Plus, because it seemed the best there was. But, the price got to me after a while and I swapped to the normal Karicare follow-on formula (Stage 2). I used to be very staunch about buying only the BEST formula available for my baby (regardless of price). But now after using the 'standard' version for a few months, my baby seems to thrive on it just as much as on the Aptamil, so I've recently been wondering if paying almost double for the 'better' formulas are really worth it? What's really better about them anyway?"

[User (mother), New Zealand (Auckland), 6 to 12 months, follow-up formula]

Brand

Caregivers who use follow-up formula and toddler milks also identify a range of infant formula, follow-up formula and toddler milks brands. These include Karicare, Nurture, S26, NAN and Neocate in the New Zealand and Australian markets. Australian caregivers also mention Mamia, Novalac, Earth's Best Organic and Bellamy's Organic.

Perceived benefits and weaknesses of follow-up formula and toddler milks

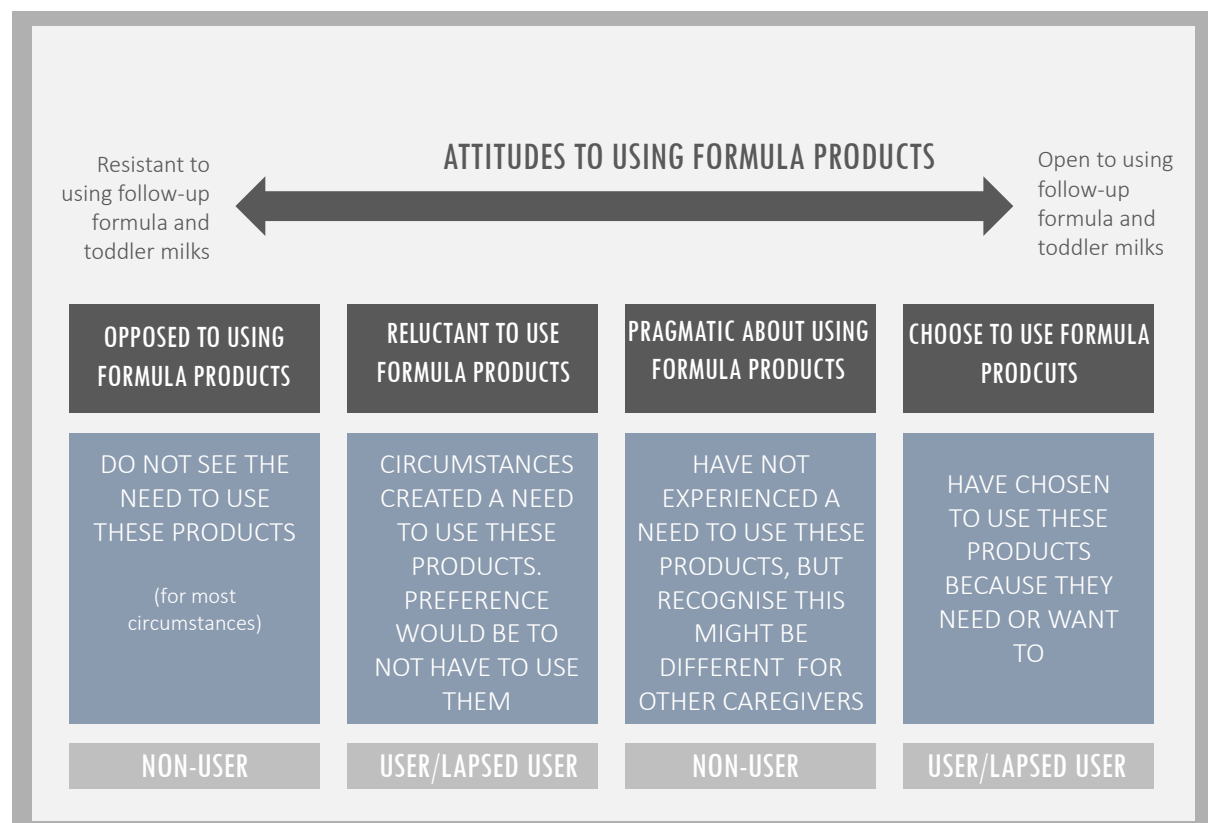
Caregivers' perceptions of the benefits and weaknesses of follow-up formula and toddler milks are influenced by their attitudes to these products relative to other drinks (e.g. breast milk, cow's milk).

Caregivers' attitudes to formula products vary on a continuum from those who are resistant to using these products to those who are more open to using them. The diagram below shows the four broad types of caregivers' perceptions that exist along this continuum and an explanation of the four perceptions follows.

The diagram below provides an indication of the range of attitudes to using formula products that exist in the market. As described in the methodology section, a strength of qualitative research is exploring and identifying a range of views held by a target population. These attitudes are identified by examining comments in the forum. However, the number of contributors and the mechanisms for analysis do not allow demographic characteristics to be identified. This would involve a larger quantitative survey to measure and size the proportion of caregivers that hold each attitude.

The attitudes described in this section are modal. This can mean that a caregiver can hold a view on use of formula for a period of time, and if circumstances change, they may change their view. Others may hold a view regardless of their circumstances over time.

Diagram: caregivers attitudes to using formula products



Opposed to using formula products - Opponents

At one extreme of the continuum, Opponents have a strong preference for breast feeding and have never provided formula products or toddler milks to their children. They are also unlikely to have seriously considered formula products as an option to feed their child and do not understand why these products would be used when under 'normal' circumstances. Opponents' opinions tended to be a minority view among caregivers contributing to the forum, as Opponents are only a sub-set of the non-users forum.³

"I never considered giving my baby formula and I don't understand why anyone would consider that in a normal situation."

[Never used (mother), New Zealand (Napier/Hastings), 6 to 12 months, non-user]

Opponents feel breast milk is the best source of nutrients for the child and that it better protects the child from illnesses. As such, Opponents feel they are providing the best for their child by breast feeding. They want to ensure their child has the most natural sources of nutrients.

"From what I know about formula - it can't replicate the antibodies breast milk provides."

[Never used (mother), New Zealand (Other South Island location), 6 to 12 months]

"I was determined I wanted to breast feed and kept on going. I want to raise my children as naturally as I can without adding any synthetics, colouring, or food additives into their bodies."

[Never used (mother), New Zealand (Tauranga), 6 to 12 months]

They also feel that as the child gets older there is no need for toddler milks, because children can start consuming cow's milk (or an alternative such as soy or goat's milk). The child's dietary requirements can be obtained from food and cow's milk (where no food allergies exist).

"I don't believe that a lot of these supplement milks are necessary as the child gets older and if they have to have milk they can have full cream cow's milk instead of some manufactured powder."

[Never used (father), Australia (Victoria), 12 to 24 months]

Opponents are aware that there are some medical situations (either mother or baby-related) that mean breast feeding is not an option. However, they feel that formula feeding should only be an option in these medical situations. They also consider that a mother's low milk supply is often cited as a reason for turning to formula products. However, some believe low supply is not always core of the issue, but rather that supply issues are not being sufficiently well addressed.

"I think formula is a great medical alternative for women who cannot breast feed for any reason, but it should not be a choice between two options. Nature gave us breasts with milk for a reason, and no substitute will ever be as good, in any way."

[Never used (mother), New Zealand (Napier/Hastings), 6 to 12 months, non-user]

³ Note: Opponents' opinions tended to be a minority view amongst those contributing to the forum. However, this could reflect the fact that Opponents are a sub-set of those who have never used follow-up formula or toddler milks. Those who have never used these products represent a small number of those who contributed to the forum (a total of 13 caregivers). In order to measure the proportion of caregivers who hold this view, a quantitative survey would need to be conducted.

"Possibly there may be some benefit to baby if mum's milk supply is not adequate, although maybe supply issues aren't always addressed very well."

[Never used (mother), New Zealand (Napier/Hastings), 12 to 24 months]

Those who are reluctant to use formula products – Reluctants

Those who are reluctant to use formula products are caregivers who use, or have used, formula products and toddler milks with their children. However, this usage had not been their initial intention and circumstances have meant that they needed to provide these products as an alternative to other drinks and nutrients (e.g. breast milk, cow's milk). Such circumstances include premature babies, poor weight gain of baby, mother's low milk supply and child's allergies (e.g. to dairy products).

"I would rather not be formula feeding at all... I don't feel like formulas are complete nutritionally. I do feel as though breast is best. I am not one to consider using follow-on formulas after the age of one. I would rather include good healthy fats and a range of foods with whatever milk they can tolerate after that age. In saying that, at the moment I don't have a choice... I have used it partially with all three kids because my health wasn't great, however, my view is to use it only when absolutely needed."

[User (mother), Australia (Tasmania), 6 to 12 months, all stages of formula]

Reluctants are more accepting than those who oppose formula use that there are various situations where providing children with formula products and toddler milks is the only option for their situation. However, similar to those that oppose formula use, Reluctants strongly believe breast milk is the best option for children.

"I used formula in the early days after my son was born as my milk supply seemed low and he was not gaining weight fast enough... I would use [formula] in the future if I had issues with milk supply, but am aware breast milk is natural and the best for the baby."

[Lapsed user (mother), Australia (Sydney), 6 to 12 months]

While many Reluctants have younger children under 12 months, there are examples of Reluctants who have older children to whom they are providing follow-up formula or toddler milk. Those with older children who reluctantly use formula products do so for three main reasons:

- Their child is a fussy eater and they worry about them not getting enough nutrients from the limited range of foods they consume
- They prefer organic or natural foods for their child (and they do not consider 'standard' formula meets this criteria)
- Their child prefers the taste of formula and will not drink cow's milk.

"With the horrible birthing experience, it wasn't my choice [to use] baby formula. For this I would be forever feeling guilty to her. I couldn't give her the very best. If we can go back in time, I would insist [on] breast feeding her no matter what and choose organic goat milk as a top-up. My own health issue is mainly due to what I have been putting in my mouth for the past 30 years and my lazy lifestyle. As every mom wants the very best for their children, I would like my baby to have organic food source as much as possible. And I have read somewhere that goat milk is the closest to human breast milk. The organic shop we usually shop in has organic goat formula, the brand of which I cannot recall. But if we were to have another baby, I would seriously consider. I have always been reluctant to switch her formula... Now she is one, we will switch her to cow or goat milk soon."

[User (mother) New Zealand, Auckland, 12 to 24 months old, follow-up formula]

"My son is drinking S26 Gold toddler at the moment. He has it once a day, around 2pm. He drinks between 30-150 mls. He's really inconsistent. I don't use this formula in any other foods/drinks. I only really went back to formula because we were struggling to get enough calcium into him, and now he's refusing lots of food, I'm hoping that the vitamins/minerals in this will tide him over until he gets back to eating normally."

[User (Mother) New Zealand (Christchurch), 12 to 24 months old, toddler milk]

"My son drinks formula instead of breast milk and cow's milk. I would like him to change to cow's milk but he prefers the taste of his formula."

[User (mother), New Zealand (Auckland), 12 to 24 months old, follow-up formula]

Those who would be open to using formula products – Pragmatics

Note that Pragmatics are not currently using formula products but would be open to it should they need to.

Those who are pragmatic about the possibility of using formula products have never provided them to their children, because they have never experienced a need to do so. However, they would not be strongly opposed to using such products should the need arise. These caregivers are breast feeding, or have been able to breast feed, their children relatively easily. Once they stop breast feeding (and their child is over 12 months old) they tend to switch to cow's milk.

"Thankfully I had a good supply. When she was one we supplemented breast milk with cow's milk and now that's what she has alongside water and juice. I wasn't opposed to using formula if we needed to..."

[Never used (mother), New Zealand (Nelson), 12 to 24 months]

"Thankfully breast feeding worked out well between my baby and I (after getting through the pain, lots of tears and patience and lots of help from the midwives at the hospital), so I didn't feel the need to have to introduce formula. I breast fed for 11 months and then introduced full cream milk. If things didn't work out with the breast feeding then, yes of course, I would have gone with the formula option."

[Never used (mother), Australia (Sydney), 12 to 24 months]

However, Pragmatics recognise and understand that not all mothers are able to breast feed as easily as they can. Unlike Opponents, Pragmatics also recognise that some caregivers may choose to use formula products and toddler milks for a range of reasons. These reasons include the mother returning to work, the mother deciding she wants to stop breast feeding, the mother not wanting to express breast milk, other caregivers able to feed an infant, and toddlers being fussy about what foods they will eat.

"The good points I know about formula - great for people who do struggle to feed, who have to go back to work, who want other caregivers to share the feeding, who don't want to pump."

[Never used (mother), New Zealand (Other South Island location), 6 to 12 months]

Pragmatics do not judge other caregivers for the choices they make about what to feed their children.

"I really think it's great if you can breast feed. But, obviously it's not for everyone, so any formula that is as close as can be is great."

Never used (mother), New Zealand (Christchurch), 6 to 12 months]

Those who choose to use formula products - Choosers

Choosers use, or have used, formula products and toddler milks with their children. Unlike Reluctant users, they are more likely to provide these products to their children out of choice. They may also use these products due to medical necessity. However, they are more relaxed about this than Reluctant users are. They are more accepting of using infant formula, follow-up formula and toddler milks and are more likely than any other caregiver type to identify the benefits of these products.

"I switched to formula full time when my son was 8 months old as he decided to keep biting me while breast feeding. I was also heading back to work and didn't have the time to express."

[Lapsed user, Mother, Australia (Tasmania), 12 to 24 months]

"I really wish that I had given her bottles/formula a lot earlier like BabyCon, as it was a real struggle to get her to have her bottle. She still struggles at times now... I really wanted her to have a bottle, so that I could leave her with others - generally Nana or Dad."

[User, Mother, New Zealand (Dunedin), 6 to 12 months, infant formula]

"I think it's interesting that everyone has to justify why they use formula. I think it is no-one's business and should be whatever works for you. Only you know your baby's situation. It's hard enough being a new mother without all the pressure from breastfeeding 'Nazis'."

[User, Mother, Australia (Melbourne), 12 to 24 months, toddler milk]

Perceived benefits and weaknesses of formula products by caregiver types

Opponents and Reluctant users (including lapsed users) hold similar views about formula products and toddler milks. Both these types of caregivers are more likely to perceive weaknesses with these products compared to other milks (e.g. breast milk and cow's milk). The main difference is the strength of these views. Opponents tend to hold stronger negative views than Reluctant users.

Pragmatics and Choosers are more similar in their views about formula products and toddler milks. Choosers are slightly more relaxed about using these products across a range of circumstances.

Given the similarities between Opponents' and Reluctant users' views, and the similarities between Pragmatics' and Choosers' perceptions, the table on the next page details the perceived strengths and weaknesses by these combined groups.

Table: benefits and weaknesses by caregiver attitude

	BENEFITS	WEAKNESSES
Opponents/Reluctants	<ul style="list-style-type: none"> Useful for medical reasons (mother's and child's). Useful if child is not being cared for by his or her mother (and therefore would not be able to receive breast milk). 	<ul style="list-style-type: none"> Unnatural, processed, synthetic product. Does not support infant's immune system as well as breast milk. Less ability for mother and child to bond. Less convenient than breast feeding or pouring cow's milk into a bottle. More expensive than breast milk or cow's milk. Increased risk of child and/or adult obesity.
Pragmatics/Choosers	<ul style="list-style-type: none"> A useful alternative for mothers who are unable or do not wish to breast feed. Keeps the baby fuller for longer, resulting in fewer feeds and longer sleeps. Unlike breast milk, caregivers know how much the child has consumed. Ensures child is receiving daily nutrients he or she needs. Feeding in public can be less awkward (for those who feel uncomfortable breast feeding in public). Mother does not have to worry about what she consumes being passed to the child. Ability of mother to return to work. Other caregivers able to feed the child. 	<ul style="list-style-type: none"> More expensive than breast milk or cow's milk. <p><i>Note that while Pragmatics and Choosers also identified some aspects of formula products similar to the weaknesses listed above, they were less likely to consider these aspects a weakness.</i></p>

Comments about perceived **weaknesses** of formula products and toddler milks.

"The one main weakness is, it's not natural, it is a synthetic substance. There are too much synthetic substances in this world."

[Never used (mother), New Zealand (Tauranga), 6 to 12 months]

"It's definitely a money saver not having to buy formula, and cow's milk is much cheaper."

[Never used (mother), New Zealand (Christchurch), 6 to 12 months]

"I loved the bonding aspect that I felt breast feeding my children and being able to just go out and about whenever I wanted and not worrying about having to pack bottles etc."

[Never used, New Zealand (Auckland), 24 to 36 months]

"It's expensive. It's a pain in the arse to make/clean/sterilise etc. Increased risk of childhood and adult obesity."

[Never used (mother), New Zealand (Other South Island location), 6 to 12 months]

Comments about perceived **benefits** of formula products and toddler milks.

“Formula keeps baby fuller than breast milk, which means less feeds. You will know exactly how much your child has drunk. Nothing you eat, drink or take (medicines) will be passed on to the baby. It may be less awkward to feed in public (depending on your opinion). There is no bond lost between mother and child.”

[Lapsed user (father), Australia (Melbourne), 12 to 24 months]

“Formula and toddler milks are ideal for ensuring that your child is receiving the correct nutrients and vitamins that might be lacking in a day-to-day diet.”

[User (other relative), Australia (Adelaide), 12 to 24 months, toddler milk]

“I usually breast feed my daughter, but when I leave her with the family I supply formula. It saves me the hassle to pump, which doesn't work well for me, and I know she gets all the nutrients she needs. She is only seven months old, so I have to use formula, as there is no other option for a child at this age.”

[User (mother), Australia (Adelaide), 6 to 12 months, infant formula]

“The main aim of us wanting to use formula was to get baby to sleep throughout the night without waking up. He wakes about five to seven times a night and has breast milk each time, as he refuses formula. Formula before bed was recommended by the pediatrician to help with sleep and also weight gain, as he is underweight for an unknown reason.”

[User (mother), New Zealand (New Plymouth), 6 to 12 months, follow-up formula]

SECTION SUMMARY

Caregivers have a range of perceptions about the benefits and weaknesses of formula products and toddler milks. These views inform their decision-making and their product usage (discussed in the next two sections of this report).

Caregivers make a distinction between infant formula and follow-up formula and toddler milks. They are more likely to perceive infant formula as a complete nutritional source for babies, while follow-up formula and toddler milks tend to be perceived as providing supplementary nutrition for a child in combination with food and other sources of nutrition.

Decision-making

This section describes caregivers' decision-making for either using or not using, infant formula, follow-up formula and toddler milks. The section encompasses reasons for:

- **using** formula (as a supplement or replacement for breast milk)
- **stopping using** follow-up formula and toddler milks (including what they are currently using)
- **never using** follow-up formula and toddler milks.

Reasons for using follow-up formula and toddler milks

Note: caregivers discussed in this section may or may not have used earlier infant formula for their child. So, some will be transitioning from breast feeding to follow-up formula and toddler milk use, while others will be transitioning from earlier infant formula use. Caregivers were asked what happened when they first started using a formula product and how old their child was at the time.⁴ The comments in this section are from users in New Zealand (n=54) and users in Australia (n=33).

Caregivers who use formula products consider formula is either a necessary or appropriate replacement or supplement to breast feeding (particularly for those with a child under one year old).

The main differences in reasons for starting are by age of introduction. Caregivers can be either:

- **Early starters** – those who introduce formula between birth and 6 months old.
- **Later starters** – those who introduce formula after 6 months of age.

Early starters

Early starters who currently use follow-up formula and toddler milks feel that the main reason for starting to use formula products was based on being unable to provide adequate breast milk supply for their child at the 0 to 6 month stage. Some of the reasons given for this were:

- Inability to latch
- Inability to provide adequate breast milk supply to meet child's nutritional needs⁵
- Painful or cracked nipples inhibiting breast feeding in some way
- Medical reasons (such as needing to take medication that makes breast feeding inadvisable).

"I had a C-section with twins. From the start I had to top up as I didn't have enough milk. I went home and tried everything to stimulate my milk, expressed often, oral meds, to help and advice from the maternal health nurse. One of the twins was a low birth weight so I had to feed every two to three hours. So, with trying to breast feed both, top up both, clean and sterilise bottles, I couldn't do it all. So opted to just bottle feed with infant formula. They had top-up feeds from birth, so they started [life] with breast and formula."

[User (mother), Australia (Melbourne), 6 to 12 months, follow-up formula]

⁴ Note that we did not code age of introduction at recruitment, so comments from the forum form the analysis for age of child when first introduced to formula (Day 2 Question 1 in the topic guide appended to this report).

⁵ This is also applicable for those caregivers who experience later difficulties with milk flow.

Some caregivers who start providing infant formula when their child is under 6 months old are more likely to persist with trying to breast feed before 'resorting' to using formula. Others may be less likely to persist or may not have attempted breast feeding before starting their child on a formula product.

Hospital and premature birth/low birth weight influence starting on formula

Some of these early starter caregivers have provided infant formula from birth due to prematurity and their child spending their early weeks in a neonatal unit. Some of these caregivers mention that their decision to continue to use formula products is shaped by this early use of infant formula and by their experiences and discussions with health professionals in the neonatal unit. This experience can also affect which brand these caregivers choose when they take their child home and for on-going purchase and use.

"Due to my child needing to be in special care for the first few days of her life she was on formula from the beginning. Her condition was such that we were monitoring her oxygen levels as she needed to be resuscitated at birth. We mixed fed so she would drink from me for a bit, but then was topped up through a nose tube with formula. We have since continued to mix feed either with whole feeds of breast milk or whole feeds of formula."

[User (mother), Australia (Sydney), 6 to 12 months, infant formula]

"My child was four weeks old when she went fully to formula feeds. We had issues with her keeping breast milk down and my paediatrician recommended medication. I didn't really want to medicate her and knowing that my twins had bottle fed with formula from six weeks with no issues, I took that option instead. My partner was also her primary caregiver from six weeks of age, as I was returning to work and bottle feeding was a better option for him."

[User (mother), Australia (Brisbane), 12 to 24 months, toddler milk]

Early starters who use infant formula from birth onwards tend to continue later (after 6 months old) to feed their child infant formula or follow-up formula. This is because they are using formula products as the primary source of nutrition for their baby and they have no other means of feeding their child before one year old.

After their child turns one, caregivers continue to use formula products as a supplementary source of nutrition for their child, and for the additional benefits (such as additional iron or protein). Many have introduced cow's milk, and most have introduced a small range of solid foods by this time.

It appears that many of the caregivers in the users forum tend to start to introduce infant formula between birth and 6 months. These users then will either progress to providing follow-up formula or toddler milks, although some intend to cease providing formula products when their child is about one year old and to introduce cows' milk.

Continued use

Caregivers that continue to use formula products after their child turns one year old do so for two main reasons – to provide nutrients missing from an unbalanced diet, or to boost the level of nutrients provided to aid growth or development (for example, extra iron or fish oils).

Later starters

Some of the caregivers in the forums started using follow-up formula or toddler milk without having introduced infant formula when their child was between 0 and 6 months. These caregivers who initiated formula feeding with follow-up formula or toddler milks after six months of age tend to report different reasons for starting using formula than early starters. These reasons are:

- Returning to work when their child is under one year old and who may have breast fed up until this point.
- Feeling their child is not eating enough once they introduce solids but have weaned off breast milk.
- Breast feeding but also using formula products for convenience.

“I breast fed my daughter until she was six months old but then I hurt my back and needed to go on painkillers, so I had to put her on formula, otherwise I would have preferred to keep breast feeding as long as possible before I returned to work.”

[User (mother), Australia (Adelaide), 12 to 24 months, toddler milk]

These later starting caregivers are introducing follow-up formula or toddler milks as a way of ensuring that the absence of breast milk in their child’s diet does not impact on their growth and development. They tend to have been breast feeding up until the time of introducing follow-up formula or toddler milks. So, they may decide not to provide breast milk any more, or their supply may have reduced.

Caregivers also regard returning to work as another reason for using follow-up formula or toddler milks (this is particularly relevant for caregivers returning work when their child is six months old). Some are more likely to feel unhappy about ‘having’ to use follow-up formula or toddler milks for their child and may be returning to work for financial reasons. Others are more likely to be relaxed about using follow-up formula or toddler milks and are less concerned about using it when they return to work.

“Initially my son was having formula in his food as a milk/nutritional replacement, because we had been breast feeding and when I went back to work he refused to take to a bottle. He also had some health issues, which eventually turned out to be the result of lactose intolerance, so we continued using lactose-free formula in his food to help boost nutritional intake and get him ‘back to normal’. Currently the formula is used in addition to regular meals, and we still fit in two breast feeds around our work/daycare routine.”

[User (mother), Australia (Melbourne), 6 to 12 months, infant formula]

Some caregivers who use formula products will use them for convenience as an alternative to expressing or pumping breast milk. For example, they may prefer to take a bottle of follow-up formula with them when travelling or out for the day. For some caregivers, this gives them a break from breast feeding and allows them more flexibility.

“My 18 month old drinks formula instead of cow's milk and breast milk, as I find it more convenient and versatile, e.g. if I need to go out. I find it easier to take the thermos/pop into a café/find a microwave rather than having to worry about the milk staying cold.”

[User (mother), New Zealand (Auckland), 12 to 24 months, follow-up formula]

Reasons for ceasing to use follow-up formula and toddler milks

Comments in this section are from caregivers have used formula products but who no longer use follow-up formula or toddler milks. The comments in this section are from lapsed users (n=39) in New Zealand and Australia.

The main reason for stopping providing formula products is because caregivers feel their child no longer needs the nutritional benefits of these products.

There are three factors that determine when caregivers stop using formula products:

1. The child reaches a milestone age (for example they turn one year old), or
2. The caregiver feels the child does not require the nutrients from formula because they are getting them from other sources (i.e. eating well and on a full and varied diet), and
3. The main caregiver (mother) returning to work.

The decision to stop using follow-up formula or toddler milks is usually a combination of these three factors, and can occur at any point in the 12 to 36 month age range (or beyond)⁶.

These caregivers weigh up the cost, inconvenience and benefits of formula products and make a decision based on what they think is best of their child. Their decisions to stop providing follow-up formula or toddler milks are informed by the following thoughts and questions:

- Is my child putting on weight and in the right percentile for their age?
- Can I safely introduce cow's milk to my child's diet?
- Would it upset my child to stop using formula and transition to something else?
- Does my child need the additional nutrition?

"It was easier and more convenient, and we think cheaper in the long run, to switch to cow's milk and my daughter didn't seem to have any problems with it."

[Lapsed user (mother), New Zealand (Dunedin), 12 to 24 months]

It appears that many caregivers in the forum review their need to provide follow-up formula or toddler milks when their child is about one year old. This is when caregivers tend to think about introducing cow's milk into their child's diet. Some will continue to provide follow-up formula or toddler milk after this age as well as cow's milk, and gradually transition away from formula products. Some caregivers report their child's allergies and intolerances to dairy can delay their decision to stop providing follow-up formulas or toddler milks (particularly for those using a soy or goat's milk type). While many caregivers review usage once the child is one year old, some caregivers continue to use these products after this time.⁷

⁶ Note that there were no instances in the forum of caregivers who stopped using formula between 6 and 12 months of age.

⁷ Note that in the usage section there is detail regarding the amount and frequency of usage by age. After their child is 12 months old, caregivers tend to report using less formula overall than when their child was under 12 months old. They gradually reduce the amount and frequency of provision as they transition away from providing these products.

The expense of formula forms a significant part of caregivers' decision-making

When their child turns one year old, many caregivers mention that cost is an important consideration when deciding to stop using follow-up formula and toddler milks. When these caregivers feel they have little choice (particularly at infant stage), they will always provide infant formula for their child, regardless of the cost. But as their child gets older and is eating solid food and drinking other beverages, many caregivers start to consider follow-up formula and toddler milks provide less value for money. Many will transition to cow's milk at this stage, as they consider it a cheaper option and sufficient when their child is consuming a varied diet.

"Our daughter was breast fed up to nine months, we then switched to formula. This was used up until about 13 months when we thought it OK to give cow's milk. It was also a financial decision, as formula can be quite expensive used regularly."

[Lapsed user (mother), Australia (Melbourne), 24 to 36 months]

"I no longer give my twins formula (as of 12 months), as the cost is very high and they gain all their nutrients from the food they eat, and drink cow's milk and water."

[Lapsed user (mother), New Zealand (Whanganui), 12 to 24 months]

"I used formula for both of my boys after I had stopped breast feeding. When my oldest reached the age of two I switched him to cow's milk (blue top) and when my youngest reached 18 months I also switched him to cow's milk. They both took the change well and we did this due to financial reasons and that they were both eating well, so didn't need the extra nutrients from a drink that they were already getting by consuming food."

[Lapsed user (mother), New Zealand (Other South Island location), 24 to 36 months]

"After the age of one both children went on to whole cow's milk having been on follow-on formula. The reasons for this was [that the] cost of the toddler milk was quite expensive and also they were having a healthy varied diet that cow's milk was sufficient."

[Lapsed user (mother), New Zealand (Auckland), 12 to 24 months]

Some caregivers use formula only intermittently when they feel it is required, due to the cost.

"I have used formula on and off with my children, but due to finances I have only used it when I have needed to (i.e. to boost my children's diet when they have gone off their food)."

[Lapsed user (mother), Australia (Queensland), 12 to 24 months]

Reasons for never using follow-up formula and toddler milks

Comments in this section come from non-users of formula products in New Zealand and Australia who have never used formula products (n=13)

As discussed earlier in the perceptions section of this report, for those who have never used formula products, the main reason for never using them is their attitude towards these products. As noted earlier there are two differing attitudes to formula products for caregivers who have never used them:

- Those who prefer not to use it at all costs and will avoid it (in the perceptions section of the report these are people who hold the attitude of opposing the use of formula products)
- Those who are willing to use formula if required but have never had to use it. (in the perceptions section of the report these are people who hold the attitude of openness to the use of formula products).

Those who prefer not to use formula products

These caregivers prefer not to use formula products, as they feel it does not sufficiently replace breast milk as a nutritional source, nor does it allow mother/child bonding in the same way they feel breast feeding does. These caregivers feel that with the right support, direction, encouragement and perseverance, they (and other parents) should not need to use formula products at all.

These caregivers feel that formula would not have been a desirable option for feeding their child, and they would have sought alternative ways of accessing breast milk before 'resorting' to formula.

"I believe if you are unable to breast feed or it's not for you, you shouldn't be judged on using formula. I do think that breast milk has the best antibodies, its sterile and on tap and bonus it costs nothing! I lost my baby weight quickly with feeding too. If I had to use formula I would want it as close to breast milk as possible. I think it seems expensive. I've been really lucky being able to breastfeed and having a good milk supply - I would probably consider using a breast milk bank if I had had trouble, before considering formula."

[Never used (mother), New Zealand (Christchurch), 6 to 12 months]

"We have never considered using formula or toddler milk of any kind with our youngest (now 17 months). We wanted to use breast milk as long as possible and then follow on (combine with) real food (via baby-led weaning). We have older twins (now aged four) who were successfully breast fed so we were confident we could do the same with the 'new' baby as there was just one!"

[Never used (father), New Zealand (Wellington), 12 to 24 months]

Those who are willing to use formula but have never needed to

As discussed in the perceptions section, these caregivers express an openness to using formula products as a realistic solution to issues with breast feeding (such as low milk supply or inability to latch). They regard formula as necessary for these circumstances and would have been happy to have used formula products, had this been their own situation. However, because they were successfully able to breast feed, their child did not need supplementary 'top-ups' and they did not need to return to work prior to weaning, these caregivers did not need to consider formula. Their own milk supply and technique were sufficient for their child to thrive and grow.

Should they have had any health concerns about their child (for example, losing weight, not getting enough fluid, failing to thrive), these caregivers would have been open to considering formula. These caregivers simply did not have a need to use formula. Many are glad/grateful for this, but would not have ruled it out altogether in the same way that caregivers who are less open to using formula would have done.

"Luckily I have been able to breast feed my first baby, so haven't considered using formula. It was quite important to me to be able to breast feed, so I really stuck at it. However if I had had issues I would have used a formula that is most like breast milk. I don't really know the brands very well, but have heard good things about Karicare. I plan to breast feed through to a year so my baby can go straight onto cow's milk. It's definitely a money saver not having to buy formula and cow's milk is much cheaper. My baby luckily has shown no signs of having issues with dairy. I really think it's great if you can breast feed, but obviously it's not for everyone, so any formula that is as close as can be is great."

[Never used (mother), New Zealand (Christchurch), 6 to 12 months]

"I never considered using infant formula, follow-on formula or toddler milks prior to the birth of my daughter. I decided that I would go with breast milk, and if for whatever reason this didn't work, then I would consider other options. I liked the idea of having more control of what I was feeding my daughter. However, I was open to the fact that if this wasn't possible, I would look at other options. The financial benefit of not needing to buy the food for my daughter was also a bonus!"

[Never used (mother), New Zealand (Invercargill), 6 to 12 months]

OBSERVATIONS AND CONCLUSIONS

Caregivers decision-making about what to provide for their child is informed by a range of factors, and each caregivers' circumstances, attitude to formula products, their family situation, costs, the age of their child, if they are working, and issues around convenience carry different weight for different caregivers. All these factors determine if formula products are right for their child.

Attitudes to breast feeding in comparison with formula also inform caregivers' decision-making: those who are opposed to formula use will spend more time persisting with breast feeding than those who are happy to use formula, as long as their child is happy and healthy overall.

Caregivers decision-making is informed by a range of sources, as discussed in the next section of this report. However, often caregivers will make the decision based on their own instincts about what is right for their child, through trial and error, and by determining what works well and keeps their child happy, well fed and healthy.

Product usage

This section describes how caregivers are using follow-up formula and toddler milks including an indication of the amount and frequency of feeding. While infant formula usage is not the main focus of this research, a short section is included, because it provides context for caregivers' usage of follow-up and toddler milks.

The main discussion centres around dairy-based follow-up formulas and toddler milks. A separate section on soy, goat and other types of follow-up formula and toddler milks is also included.⁸

Note that this section describes how caregivers use follow-up formula and toddler milks. Comparison between breast milk or cow's milk usage cannot be made.

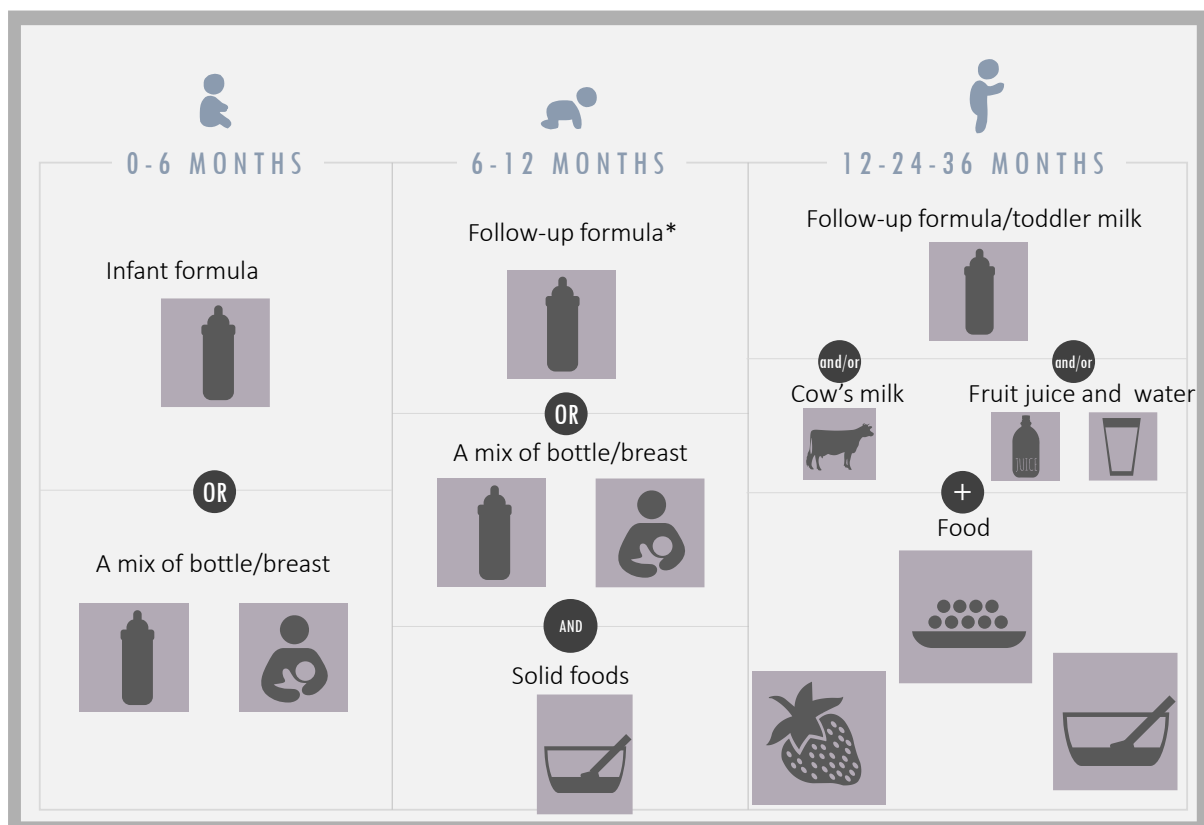
Types of usage by age

The diagram on the next page shows usage for caregivers in both New Zealand and Australia by age. A fuller description of the proportions of formula products, other drinks and solid foods follows.

Note that the age ranges, and the transitions between them are not clear-cut. Caregivers have a margin between each of the age stages below where they may introduce a food or beverage such as cow's milk. This may be about two months either side of the milestone age and is driven by either the caregivers' decision-making, or by baby-led weaning and feeding practices.

⁸ Note that soy and goat's milk usage is included in the general discussion of usage.

Diagram: Formula usage by age in the users forum



* Note that cow's milk is unlikely to be provided in this age range.

Caregivers in the forum reported when they first started using formula products in addition to how they use products currently. This has allowed the ability to examine how formula usage changes over time. Caregivers tend to use formula (including infant formula) for a variety of reasons and this typically depends on the age of the child.

Two predominant styles of usage were identified in the feeding of infants and young children.

- The first is as a sole or predominant source of nutrition in the child's diet, this is characterised by several feeds per day (i.e. more than three) and larger volumes consumed by the child. Typically younger children (i.e. those under 12 months) are fed formula products in this manner and a feed will often be considered or used as a meal.
- The alternative feeding style is to provide fewer feeds per day, where formula products are only one component of a more varied diet and are not relied on as a meal replacement. This is more likely to be the case for children over 12 months old.

Formula usage over time

The way caregivers use formula products differs as their child gets older.

- At **0 to 6 months**, caregivers tend to think of infant formula as providing the *primary* source of energy and nutrients for their child.
- At the **6 to 12 month** period this is similar. So, while solid foods may be being introduced at this stage, these are not provided in sufficient quantities to provide full nutritional needs.

- By **12 months or older**, caregivers are using follow-up formula and toddler milks as a *supplementary* source of nutrition only, as a greater proportion of other solid foods and drinks (such as cow's milk) are part of the child's regular diet.

Note that the following descriptors are used to characterise the two predominant feeding styles:

- **Primary feeding** - formula products are the sole or predominant source of nutrition in the child's diet where a feed will often be considered or used as a meal
- **Supplementary feeding** where formula products are only one component of a more varied diet and are not relied on as a meal replacement

Table: usage by age

AGE	PURPOSE	USAGE OPTIONS
0 to 6 months	Primary	Exclusive formula feeding
		Mixed milk feeding, in addition to breast milk
6 to 12 months	Primary	Only milk based beverage consumed in addition to small amounts of complementary foods
		Mixed milk feeding (including breast milk) in addition to small amounts of complementary food
	Supplementary (may or may not include breast milk)	As a component of food
		As a comforter (in the evenings)
12 months+	Supplementary	As a snack (stand-alone between meals)
		As a milk based beverage
		As a component of food
		As a comforter (in the evenings)
		As a snack (between meals)

Please note that usage does not always correspond exactly with age of the child as demonstrated below.

Caregivers' transitioning between stages can be driven by the caregivers requirements (for example, the need to return to work) or by their child's needs and preferences. However, typically, those with children aged 6 to 12 months old are using follow-up formula, and those with children aged between 12 and 36 months are using toddler milks. Caregivers in the forum are using age- appropriate formula products for their child.

Transitioning through stages

Caregivers vary in how rigidly they align the stage they use with the age of their child. Some are happy to remain using the current age stage for some time after the milestone age has passed (for example, a caregiver could be using follow-on formula⁹ for a 13 month old), while other caregivers will move their child onto the next stage as soon as they reach the age milestone.

Reasons for moving to the next stage include wanting to ensure their child gets the 'correct' nutrient balance for their age.

Some caregivers in the forum report that they were worried about moving onto the next stage of formula as it could cause discomfort, such as constipation, for their child, but felt the need to do so because of a concern that their current stage did not meet their child's changing nutritional needs but the next stage of formula would.

"We continue to use Nan Pro Gold 1 even though my little boy is now 11 months old. I did automatically try Nan Pro Gold 2 (Suitable from 6 months) after he reached 7 months but he suffered severe constipation with this formula. Our Maternal and Child Health Nurse advised that we should continue with the first stage formula as it would still meet the nutritional targets so long as my son was also consuming some solids."

[User (mother), Australia (Melbourne), 6 to 12 months, infant formula]

Some caregivers do not feel as concerned about the composition and will tend to retain usage of the same stage as their child gets older. They feel their child enjoys the taste of the current stage, and is happy to consume it. For some caregivers, this is a higher priority than matching the nutritional composition to their child's age. They may be reluctant to move on to the next stage because they are concerned that the flavour, texture or other characteristics may change and reduce the formula's palatability for their child.

The following section describes actual usage and stages as reported by caregivers. Brands used are not provided.

From 0 to 6 months

While infant formula is not the focus of the report, it helps to understand why caregivers choosing to feed infant formula instead of follow-on formula products for their 6 to 12 month old child when both infant and follow-on formula are suitable during this age range¹⁰. Some caregivers who used infant formula feel that their child is happy and thriving on a particular brand or stage of formula. They will tend not to change brand or type as their child gets older unless there is a problem.

"I always chose the same brand, as I feel they get used to the taste of that brand."

[User (mother), New Zealand (Whanganui), 6 to 12 months, infant formula]

⁹ Note that throughout this report we have used infant formula from 0 to 6 months as this is the most common infant formula age range that caregivers mentioned. Those using a specialised formula that is 'all stages' usually recognise that there are differences in the age ranges of 'standard' formula products.

¹⁰ Both infant formula and follow-on formula are regulated as suitable for infants aged 6 to 12 months.

Exclusive or mixed feeding

Caregivers that used formula reported that when their child was younger than six months of age they tended to be exclusively feeding their child infant formula or feed breast milk and use infant formula as a 'top-up'. Most caregivers report that they did not provide solid food when their child was younger than six months old.

From birth to six months, caregivers tend to be using infant formula as a primary source of food for their child either with or without breast milk¹¹. Either infant formula or breast milk was/is the main source of nutrition by volume (i.e. some caregivers will provide more bottles of infant formula than breast milk, others vice-versa). Some caregivers exclusively use infant formula at this stage, and others use it to supplement breast milk supply to ensure the child is sufficiently satiated.

From 6 to 12 months

Comments in the section come from New Zealand (n=20) and Australian (n=9) users of formula.

Many of the caregivers in the forum with children aged 6 to 12 months were using follow-up formula during this age range. Caregivers in this category were either using follow-up formula in combination with breast milk or as the sole milk drink for their child. Cows' milk was rarely given as a beverage to children in this age group, but one or two caregivers used it as a component of food.

Caregivers are providing follow-up formula in the following ways:

Primary:

- Exclusive feeding (no breast milk or other milks)
- Mix feeding (+ breast milk)

Supplementary (in combination with solid foods)

- As a component of food
- As a comforter (in the evenings)
- As a snack or top-up to provide their child with extra nutrients (stand-alone between meals).

Primary usage

Caregivers whose children are in the younger stage of this age range may not yet have introduced solids into their child's diet or will have started introducing it in very small amounts. They will either be using follow-up formula or infant formula exclusively or in combination with breast feeding.

Some examples of usage amounts and frequency for children in this age range are illustrated below.

Responses provided by caregivers in the users forum indicate that usage (frequency and amounts) generally decrease with the child 'age as other complementary foods are introduced to the diet.

Note these are a selection of 'typical examples' from the forum only and do not indicate how many caregivers use these amounts and frequencies.

¹¹ Amounts provided and bottle numbers are not provided for this age group as caregivers with children in this age group were not included in the research.

Table: 6 to 12 months – typical usage and frequency of formula products

Number of bottles	Bottle amount	Times	Type
3	150ml	After meals	Follow-up formula
3-4	150 – 200mls	Breakfast, lunch and dinner time, during night	Infant formula ¹²
4	150mls	After meals three times a day and at night	Follow-up formula
5	150mls	From 7:00am to 3:00am	Soy (all stages)
5	150ml	Between 5:30am and 7:00pm	Follow-up formula

“My 11 month old drinks Heinz Gold+ Stage 2 formula. He has 3 bottles a day of 150ml after his solids. He also has a bottle in the night of 150ml. I don’t use it in his solids, I would use normal milk. I feel a little of the normal milk will not hurt him at this age and good for him to get used to it and see if any allergies or reactions before I switch to this after he is one year old and moves on from formula.”

[User (mother), New Zealand (Whangarei), 6 to 12 months, follow-up formula]

“My 12 month old has Karicare Stage 2 but when he has finished the tins we have, we will then be going on to stage 3. He has 200mls two times during the day sometimes three times depending how his night sleep has been. And then he has 250mls at night. Sometimes I use it in his cereal but not very often, I tend to use normal [cow’s] milk.”

[User (mother), New Zealand (Hamilton), 6 to 12 months, follow-up formula]

Supplementary usage

As a component of food (supplementary usage)

Some users reported use of follow-up formula as a component of food for their child at 6 to 12 months of age. Reasons given for this include:

- advice that cows’ milk should not be introduced under 12 months
- their child likes the taste of formula or is familiar with it and it helps to introduce solids and make them more palatable
- allergies to other milks (e.g. allergic to dairy, so unable to tolerate cow’s milk in custard)
- additional nutritional value (as a booster to nutrients in the food).

Caregivers use follow-up formula and toddler milks in this way to incorporate more vitamins and minerals into their child’s diet. They may also use this way of ‘stealthily’ getting formula into their child’s diet if they refuse to drink it as a stand-alone drink. Caregivers feel the additional nutritional benefits of formula (such as vitamins, minerals, immune support mechanisms and fish oils for brain and visual development) are worth the effort of combining formula into food.

“I sometimes I use it in preparing porridge and rice cereal.”

[User (mother), New Zealand (Auckland), 6 to 12 month old, infant formula]

¹² Note this child is ten months old but the caregiver reports that ‘the doctor told me all the stages are the same’, so she has continued to use the infant formula for this reason. She will occasionally use a stage 2 or 3 formula for the same child, but not often.

"I use his formula to prepare anything with a lot of milk, or on cereal. For just general baking I use plain blue top milk."

[User (mother), New Zealand (Whanganui), 6 to 12 month, infant formula]

Caregivers add follow-up or toddler milk powder to foods prepared for their child to increase the calorie content and encourage weight gain in children where there is concern about lack of weight gain.

"In order to help her gain weight, I usually toss a capful of formula powder into whatever other food she has since it has relatively high calories."

[User (mother), New Zealand (Hamilton), 6 to 12 months, infant formula]¹³

As a comforter (supplementary usage)

Caregivers provide follow-up formula for their child in the evenings as a way to settle their child and signal that it is time to sleep. Caregivers also feel that formula can be filling and provides dense nutritional benefits to their child, keeping them fuller longer, and helping them sleep through the night.

"We use Gold + Follow-on from six months. He drinks it before his mid-morning and afternoon sleeps and then prior to going to bed at night. Approx. 150-200mls each time."

[User (father), New Zealand (Dunedin), 6 to 12 months, follow-up formula]

As a stand-alone snack between meals (supplementary usage)

Caregivers feed their child follow-up formula as a snack between meals. This is to provide nutrition in addition to any solid foods that their child might consume at meal times.

"It makes up one of her normal feeds and depending on the time it might be the last feed of the day or just an afternoon feed."

[User (mother), Australia (Adelaide), 6 to 12 months, infant formula]

From 12 to 24 months

Comments in this section are from New Zealand users (n=28) and Australian users (n=16).

Caregivers with a child in this age range tend to start using cow's milk as both a beverage, and as a component of food. At this age range, caregivers are using follow-up formula or toddler milks as a supplement to their child's main source of nutrition, which is a range of solid foods. Most caregivers with a child in this age range are using toddler milks, although some with a child close to 12 months remain on follow-up formula.

Caregivers are using follow-up formula and toddler milks in the following four usage situations at this age range, all of which are supplementary feeding styles:

1. As a milk-based beverage
2. As a component of food
3. As a comforter in the evenings
4. As a snack between meals.

¹³ Note the formula this caregiver is using is 'all ages from birth'.

1. As a milk-based beverage

Formula products may be given at regular intervals during the day, starting from waking up before/with breakfast, up until last thing at night. Evenings appears to be the most common time for providing formula products in this age group (and also in the 24 to 36 months of age group). In addition to either follow-up formula or toddler milks, some children are also consuming cow's milk both as a component of food or as a beverage.

Caregivers with children aged 12 months to 24 months old are generally providing follow-up formula and toddler milks according to two feeding styles:

- as a **primary** source of nutrition as a replacement for, or in addition to breast milk (this style usually occurs closer to 12 months).
- as a **supplementary food** as a replacement for cow's milk (as the child ages from one to three years old). Some will also still be breast feeding and will be using follow-up formula or toddler milks as a top up or supplementary to this.

Volume and frequency of formula product provision tend to decrease as the child ages and the role of formula products transitions from a complete meal replacer to a milk-based beverage in a diversified diet.

The examples below show typical usage amounts and frequency for follow-up formula or toddler milks.

Table: 12 to 24 months – typical usage and frequency of formula products

Number of bottles	Bottle amount	Times	Type
2	100 to 150mls	Morning and evening	Toddler Milk
3	120 to 180mls	Morning, mid-afternoon, before bed at night	All stages
1	220mls	Evening (drinks blue top cow's milk as well)	Toddler Milk
1-2	100 to 150mls	During the day, and after dinner before sleep	Toddler Milk
3	150 to 200mls	Before day sleeps and prior to bed at night	Follow-up formula

"We use this drink [S26 Gold] when our daughter wakes, as a morning drink, she's only drinking 150 mls first thing in the morning, she's more interested in her breakfast. Other bottles are just after lunch, and at bedtime.

I do use a small amount of formula (less than 5g) when mixing her breakfast (porridge).

My daughter is having four bottles a day. Some are slightly more than the guide, some are less. Mostly around 200 mls per bottle, although may be 180ml. In a day, averaging 600mls"

[User (mother), New Zealand (Auckland), 12 to 24 months, toddler milk]

"My 21 month old boy is drinking s26 Gold Toddler formula and he loves it.

My son drinks it once or twice a day now, around 11:30am when he has his sleep for the day and one later in the afternoon. Each bottle is 200ml of water and 5 scoops of their formula. He drinks water throughout the day as well. I do not use this in any of his foods."

[User (mother), New Zealand (Auckland), 12 to 24 months, toddler milk]

One caregiver reported mixing formula with cows' milk as a strategy to transition her child to cows' milk.

"My son drinks Karicare Aptamil AR stage 1 and 2 (from birth to 12 months¹⁴), premium thickened infant formula. We are now switching to full cream cow's milk, so the amount he currently drinks is: 150 ml of water + 3 spoons of formula + around 100 ml of cow's milk at around 7am when he wakes up (before breakfast) and the same amount at around 7.30-8.00pm before going to bed (which is around half-an-hour to one hour after dinner) + 250 ml of water with 5 scoops of formula in the afternoon (around 4.30-5.00pm) when he is at childcare (we didn't want to complicate things at childcare by telling them to prepare new quantities of formula for his afternoon bottle for now...). We will reduce the amount of water to only 100 ml starting tomorrow morning and also ask childcare to do the same for his afternoon feed, as we will soon travel overseas and want to be on cow's milk only for that."

[User (mother), Australia (Sydney), 12 to 24 months, all ages follow-up formula]

2. As a component of food

Similar to caregivers of younger children, some caregivers with a child aged 12 months plus report using follow-up formula or toddler milks as a component of food they feed their child. This is for the same three reasons as other caregivers with younger children mentioned earlier.

As with other caregivers, those with children aged 12 months or over feel their child will benefit from additional nutrients provided by follow-up formula or toddler milk. Caregivers whose children are fussy eaters can feel their child needs the added nutrients. As with the younger age group, caregivers use formula in foods as a strategy to wean their children onto solid foods.

"I did used to use the stage one and two in preparing her cereals and mashed veggies, to help her transition to solids with that familiar flavour of her milk. I believe this helped the good eater I have now. She was on supplemented solids from four months old."

[User (mother), New Zealand (Wellington), 12 to 24 months, toddler milk]

One caregiver can only get their child to consume follow-up formula by 'hiding' it in food.

"My son uses Karicare Aptamil Gold De-Lact Stage 2, a lactose-free formula. He refuses to drink it plain, so we add it to his porridge/Weetbix and even fruit puree (makes a kind of custard). He has the equivalent of two feeds a day this way."

[User (mother), Australia (New South Wales), 12 to 24 months, follow-up formula]

3. As a comforter (particularly in the evenings to settle to sleep)

Some caregivers feel their child no longer requires the nutritional boost that follow-up formula or toddler milks provide. However, they still use a bottle of either follow-up formula or toddler milk at night to settle and soothe their child. This demonstrates how caregivers use follow-up formula and toddler milks as a comforter to their child rather than a nutritional aid. They recognise that their child no longer *physically* needs the nutritional benefits of a formula product, but they still retain a *psychological* need for the taste of it in a bottle at night.

¹⁴ Note this is for all ages from 0 to over 12 months.

"Formula and milk have become a habit for him when he first wakes up in the morning and as a settling habit for him at night. Although my son is a great eater and also a healthy eater, I am sure there would be few nutrients that he may be lacking. I use the formula to ensure he is receiving what he needs, formula is not used as a substitute for meals generally but I have found he likes the comfort of a bottle and/or formula when he is sick."

[User (father), New Zealand (Auckland), 12 to 24 months, toddler milk]

Our 24 month old has Karicare Gold Plus Toddler. Generally she will have three portions of 200ml each day, the most important to her being her 'nite nite' drink."

[User (father), New Zealand (Lower North Island), 12 to 24 months, toddler milk]

4. As a snack (between meals)

Caregivers are using some follow-up formula and toddler milks as a snack between meals at morning and afternoon tea times. This may be in addition to using it as a drink at mealtimes, or they have not be drinking follow-up formula or toddler milks at any other time. There may not be a routine for this usage, as caregivers may be providing a bottle of follow-up formula or toddler milks only if their child indicates they would like some.

"If she wants an extra bottle, I'm very happy for her to have that :) It wouldn't replace a meal, just maybe less of a meal depending on her needs, or in a growth spurt extra to her meals."

[User (mother), New Zealand (Wellington), 12 to 24 months, toddler milk]

From 24 to 36 months

Comments in this section are from New Zealand users (n=4) and Australian users (n=8). Where usage in children of this age range is similar to those of children in the 12 to 24 age range, this is noted in the text and the reader should refer to the earlier section of the report.

At this age range, caregivers are using follow-up formula or toddler milks as a supplement to their child's main source of nutrition, which is a range of solid foods. Most caregivers with a child in this age range are using toddler milks. Generally the caregivers of children in this age group are feeding fewer feeds of formula per day than at earlier ages. They are tending to provide a bottle in the mornings and in the evenings, rather than at regular intervals throughout the day. As with the 12 to 24 months of age group, evenings appear to be the most common time for providing formula products.

Caregivers are using follow-up formula and toddler milks in the following same usage situations as the 12 to 24 month age stages, all of which are supplementary sources of nutrition. However, they are using less formula overall, and potentially providing more cow's milk (if no allergies are present). It appears it is more common for caregivers to use formula as a comforter at this age.

The table on the next page provides an indication of typical usage at this age range. Children in this age range are consuming between one and two bottles per day and almost all have less than three. The most commonly cited time of day for feeding toddler milk was at night, with some providing an additional feed in the morning.

Table: 24 to 36 months – typical usage and frequency of formula products

Number of bottles	Bottle amount	Times	Type
1	200 – 250mls	Just before bed	Toddler Milk
1	200mls	Just before bed	Toddler Milk
1-2	180mls	Lunch time (at daycare) and just before bed	Soy any stage
2	150mls	Morning and evening	Soy and stage
3	50 to 70mls	With breakfast, lunch and dinner	Toddler milk

“My two year old currently drinks Karicare Soy (all ages) - she has it 2 times a day in the morning and evening - generally about 150ml. We also have her on Almond milk following her day sleep. We have kept her on formula after trying to put her on soy milk and identifying behavioural issues (biting, scratching, squeezing anyone and everyone) that occurred within 2 days of drinking soy milk. We are not sure if this is due to the soy or the preservatives and are currently doing a GP monitored elimination diet to determine this. Other milks such as almond, oat and rice do not have much calcium so we have decided to maintain the formula to ensure she gets the calcium. We don't use the formula with other foods, as we use rice, almond or oat milk (and the whole family eats the same meals, so we don't have to cook 2 different meals).”
 [User (mother), Australia (Sydney), 24 to 36 months, soy all ages formula]

Some caregivers use toddler milk as a component of food. The reasons for this include an allergy to cow's milk, as the example below demonstrates.

“My son is two and a half and drinks either the S26 Soy milk or the Karicare Soy milk (stage: from birth) which he has drunk since he was 6 weeks old due to dairy intolerance. At home he tends to drink milk just at bed time (180ml) but when he is at daycare he also has one at lunch time (120ml) too. Yes I do use this in preparing other foods.”
 [User (mother) New Zealand (Auckland) 24 to 36 months, All Stages]

Some caregivers provide a bottle as a comforter in the evenings which seems to be a common usage situation at this age.

“My daughter currently has one bottle of s26 toddler just before bed and drinks normal cow's milk all other times throughout the day.”
 [User (father), Australia (Brisbane), 24 to 36 months, toddler milk]

“We have basically weaned our little girl off formula milk - we have moved to regular cow's milk (blue top) for the majority of her bottles. We still have Nurture 3 in the cupboard for when we go away on trips or if she stays with relatives. She has a bottle every night at bedtime, about 200mls. Other than that we use regular milk for her breakfast cereals and if she has a drink of milk with her meals.”
 [User (mother), New Zealand (Hamilton), 24 to 36 months, toddler milk]

Similar to caregivers with younger children (12 to 24 months), some caregivers with children aged 24 to 36 months are using follow-up formula and toddler milks as a snack between meals at morning and afternoon tea times. There may not be a routine for this usage, as caregivers may be providing a bottle of follow-up formula or toddler milks only if their child indicates they would like it.

Transitioning between stages

Caregivers are aware that follow-up formula and toddler milks come in different stages for different ages. Not all follow these recommendations to the letter, but most will eventually move their child from one stage to another. When they do, almost all caregivers prefer to use the same brand in the next stage. This is because they do not want to risk digestive upset by trialling a new brand. If stage 1 of a particular brand is successful (i.e. their child is drinking it, it is not upsetting their system, and they are gaining weight), then caregivers will almost always select the next stage from the same brand.

The strategies described below are designed to minimise disruption to the child's digestion and to household eating patterns.

Transitioning to another stage – strategies

Caregivers describe a range of behaviours for moving their child from one stage to another:

- Using up the current supply. This can vary in length of time, as some caregivers are 'stockpiling' tins of food for fear of running out (or have bought tins when they were on special). This is particularly true of those who use less 'popular' or commonly available types or brands of formula, as they are concerned that it is not easily accessible when they happen to run out.
- Gradually increasing/decreasing the proportions. Caregivers will use a range of strategies to acclimatise their child to a new formula (either a new stage, or a new type). This may involve:
 - Mixing the 'new' formula stage in increasing proportions into food
 - Decreasing proportions of breast milk and increasing proportions of formula
 - Adding the 'new' formula stage to other food and drinks, such as hot chocolate or mashed potatoes.

"I always chose the same brand as I feel they get used to the taste of that brand. Often when you change brand it can upset their digestion, so I go with the flow once they are settled. I move them through the stages as age appropriate."

[User (mother), New Zealand (Whanganui), 60 to 12 months, infant formula]

Strategies for ceasing to provide formula

As discussed earlier in the decision-making section of this report, caregivers usually decide to cease providing either follow-up formula or toddler milks when they consider their child no longer needs the nutritional boost it provides. Once they have made the decision to cease providing formula, caregivers use a range of strategies to 'phase out' the follow-up formula or toddler milks from their child's diet. They will do this gradually by a combination of:

- Reducing the number of follow-up formula or toddler milks bottles per day
- Reducing the amount of follow-up formula or toddler milks in each bottle
- Mixing cows' milk with formula
- Increasing the provision of other drinks such as:
 - Diluted juice
 - Water
 - Cow's milk
 - Other cow's milk substitutes (for example, soy or goat's milk).

The age of ceasing to provide formula is a decision that caregivers make when they feel their child no longer requires the nutrition. This may be once the child is eating well and can occur at any time in the period from introduction of solids around six months to 36 months old.

“They [older children] got old enough to drink cow’s milk (1+ years) and I felt like they were getting all their nutritional requirements from solid food and their dose of calcium from cow milk, cheese, yoghurts and other dairy products. I also was working when I had my older children so that’s why they were usually formula fed.”

[Lapsed user (mother), New Zealand (Auckland)]

Unusually, one lapsed user who had a premature baby gave her child infant formula until she was able to breast feed. She stopped using infant formula for this reason.

My baby was born five weeks premature, so it was important to give her formula ‘top-ups’ until my milk came in and to ensure she was gaining weight at a healthy rate. I went from using infant formula to exclusively breast feeding as soon as my baby was able to get enough breast milk from me.

[Lapsed user (mother), Australia (Brisbane), 6 to 12 months]

Out-of-home or non-main caregiver usage situations

Caregivers mention two situations where their usage might vary from their normal routine:

- When others (such as grandparents) are looking after the child
- When it might be less convenient to make up a formula bottle (e.g. out for the day or travelling).

Caregivers report that in these situations they tend to use a different packaging variant (but the same brand, type and stage), for example, a single use sachet or tetrapak.

“I would like to see the [our formula] being available in travel sachets as we go out a bit and it is so much easier to throw a sachet or two into the nappy bag instead of remembering to measure out into a container.”

[User, mother), New Zealand (Hamilton), 6 to 12 months, follow-up formula]

Caregivers use these strategies to avoid the risk of preparation error from people who may not be familiar with the preparation of formula (or who are not in the habit).

Caregivers want (as above) to maintain consistency of feeding or drinking for their child, even when they are not directly involved in care (because they are at work or unavailable for other reasons). However, they also balance this with ensuring formula preparation is as easy and uncomplicated as it can be for any other caregivers.

Caregivers also use single-use sachets when they are out with their child themselves as a convenient way to feed their child when they are not able to prepare the formula as they normally would.

Allergies and intolerances

Many caregivers report using follow-up formula and toddler milks as an alternative to cow’s milk once their child reaches about one year old. Many of these caregivers in the forum report their child experiences digestive issues such as dairy intolerances or allergies. These have either been diagnosed by a medical expert, or caregivers have diagnosed this themselves based on their child’s reaction. Some caregivers have been told by medical and healthcare professionals to try their child on a non-dairy alternative to cow’s milk or a lactose-free follow-up formula or toddler milks they were using at the time.

Some of the issues caregivers report are related to wind, constipation, diarrhea, rashes, lip and eye swelling, and upset or sore stomach. Usually this is reported after trying their child on cow's milk for the first time.

"A dairy intolerance meant that I was advised to try HA, but that didn't help at all so I switched to soy. My son didn't like the Karicare Soy when he was young, so had the S26 which was later replaced by the more expensive S26 Gold. Basically my choice when my son was small (from 6 weeks I think) was what he would drink and his body could tolerate."

[User (mother), New Zealand (Auckland), 12 to 24 months, all stages formula]

"I used cow's milk formula with my first child from 6 months to a year. The main reason for this was that I returned to work after 4 months (expressed for 2 months). Child number 2 I tried formula at 6 months but this made him unwell. It turned out that he had a reasonably severe dairy intolerance, as did my older child. We switched to using soy milk while baby number 2 was at preschool, and breast milk while at home. He continued breast feeding until 21 months old. With my third child it was obvious right from birth that he had the same intolerance, as I am unable to eat or drink even the tiniest bit of dairy myself without it upsetting his tummy (It passes through the breast milk). I am not working at the moment so there is no need for me to feed him anything other than breast milk anyway. When he weans himself off I will feed him standard soy milk also. I enjoy breastfeeding and see it as a healthy option

[Lapsed user (mother), New Zealand (Other South Island location), 6 to 12 months]

"[When I changed from breast milk to formula], I changed to formula which then made my baby constipated and windy, so was advised to change to soy milk. I did that for two months then changed to s26 Gold as it was the formula that others had recommended and it helped with the constipation."

[User (mother), New Zealand (Auckland), 6 to 12 months, follow-up formula]

As an alternative to cow's milk, caregivers will use a trial and error approach to seeking out suitable follow-up formula or toddler milks, (depending on the age of their child at the onset of the allergy/intolerance).

"My eldest daughter was formula fed and she reacted with the cow's milk formulas, so ended up on S26 Soy. When my younger daughter needed formula top-ups we started with S26 Gold. When she was a couple of months old she started throwing up my breast milk, so we switched her to formula only. She was still spilling quite a bit and we experimented with Karicare and Nurture but she was still spilling. We tried goat's formula thinking she might be reacting to the cow's formula, but after a while was still spilling this. I tried another brand of soy-based formula (I think it was Karicare), as it was cheaper, but she didn't like the taste. She ended up being happy and settle with s26 Soy, just like her older sister. It is expensive at \$28 a tin, and as it is not available in my local PAK'nSAVE, we have to drive 20 minutes in the other direction (we live in a rural town) to Countdown to buy it."

[User (mother), New Zealand (Upper North Island), 6 to 12 months, follow-up formula]

Caregivers are using formula products for a range of different eating and drinking occasions either as a primary, or a supplementary style of feeding. The role and pattern of usage generally changes over time based on the child's nutritional and psychological needs until formula products are no longer deemed necessary.

Usage frequencies and combinations, as well as amounts per bottle vary between children depending on the role of the products in the child's diet. Generally, frequency and volume decrease with age as the diet becomes more diversified and the caregiver places less emphasis on the nutritional importance of formula products. Some caregivers will be using other forms of milk (such as cow's, soy, goat's or breast milk) and this will affect overall usage.

Allergies and intolerances play a part in what type of follow-up formulas or toddler milks to use as some caregivers mention they are unable to provide cow's milk to their child and will continue with a soy toddler milk for the foreseeable future.

Purchase decisions

This section describes how caregivers make purchase decisions. This encompasses:

- What information they need to know when deciding to use formula, and how this information is sought
- Purchase behaviour
- What information they look for on the tin and label.

Caregivers make two key decisions regarding the use of formula products, namely whether or not to use formula products, and which stage, brand, and type to purchase. They seek answers to these questions from a range of sources.

Pre-purchase sources of information

Caregivers were asked about when they first decided they might need to use formula, and what information sources they used to inform this first purchase. Note that caregivers in the forum mainly reported starting to use formula products at the infant formula stage. It is at this time (when their child is between 0 and 12 months) that caregivers seek information.

Caregivers' main information needs occur prior to the first time they need to purchase a formula product. They need to know what formula to purchase for their child, so all their information needs are centred around this point. The key reason for seeking information is to *ensure that caregivers do the right thing for their child*. This overarching concern drives the type of information they seek.

Caregivers' information needs can be roughly separated into two types of sources:

- Formal and medical
- Informal and peer networking.

Formal and medical

Caregivers seek information from medical professionals. These may be people involved directly (such as their family GP) or indirectly (for example, a pharmacist) in the medical care of their child. Caregivers have a range of questions related to this area:

- What is the best formula for my child (i.e. the safest, nutritionally best)
- What is the best formula for:
 - Allergies
 - Rashes
 - Constipation
 - Diarrhea
 - Other health complaints (such as behavioural issues)
- What do experts recommend to other caregivers? What is the most popular brand?
- How can I encourage my child to eat/drink more?

Sources

Caregivers often want a medical expert to recommend a particular brand or type of formula for their child. They consider medical experts a trustworthy and reliable source of information, and will often make purchase decisions based on recommendations from healthcare professions. The most common medical sources of information are:

- Maternal Health Nurse (Australia)
- Midwife
- GP
- Pharmacist
- Hospital staff (in cases where babies are premature or low birth weight and have needed neonatal care).
- Plunket nurse (New Zealand) or Community Health Nurse (Australia).

Caregivers will also consult medical professionals in their family or social circle. For example, an aunt who is a nurse or a friend who works in healthcare.

“I also asked our family doctor, Plunket nurse and midwife if they had any preferences. My doctor mentioned the SMA formula which we tried for my daughter as she was always hungry.”

[User (mother), New Zealand (Dunedin), 6 to 12 months, infant formula¹⁵]

“We started off with S26 Gold Newborn as my older daughter had S26 (recommended by one of the hospital midwives).”

[User (mother), New Zealand (Other South Island location), 6 to 12 months, infant formula]

“We were informed by the midwives that if we were purely bottle feeding, then we should get the gold formula. We tried three different brands before we stuck with S26, as that seemed to make my son the least spilly.”

[User (mother), New Zealand (Christchurch), 12 to 24 months, toddler milk]

Not all healthcare professionals are forthcoming when it comes to providing information about formula, which can be frustrating and upsetting for caregivers who are unable to/choose not to breast feed.

“The midwives at Wellington hospital were very nice, but all went silent when I would ask about formula. One kindly said she just wasn't allowed to promote formula feeding, which was gutting when I was having such a struggle.”

[User (mother), New Zealand (Wellington), 12 to 24 months, follow-up formula]

Informal peer networking

Caregivers do not just want medical facts and information, they also want information from a non-medical perspective about formula types and brands, and what might be suitable for their own child. They also want to know what the *effect* of a particular formula might be (for example, if a brand is known to cause constipation). They also seek to confirm their own experiences. These informal sources of information are equally as valuable as medical opinions and information, although caregivers seek slightly different information from non-medical sources.

¹⁵ Note the child is 10 months old and is still using infant formula because the caregiver's GP said “they are all the same.”

The types of information caregivers seek from informal sources are:

- My child has wind/indigestion/colic/diarrhoea/constipation – could formula be the cause?
- My child has allergies, what has your formula and experience been?
- What is the best formula for children with allergies?
- What is the most common formula that is easily available and well tolerated?
- What is the difference between gold and standard formulas?

“When we were deciding what formula to buy we relied on information from friends who had recently had children.”

[User (mother), New Zealand (Auckland), 6 to 12 months, follow-up formula]

“I got information from my childcare centre where I worked, so I had seen lots of babies come through with different formulas. The most common one seemed to be Karicare, part of the reason why we chose it for both our kids.”

[User (mother), New Zealand (Dunedin), 6 to 12 months, infant formula¹⁶]

Sources

Caregivers use a range of sources for finding out the information above. These include:

- The internet:
 - Parent forums
 - Formula brand websites (i.e. Nutricia Karicare or Heinz Nurture websites).
 - Medical information online (via Google), for example, by Googling ‘child allergies and formula (brand).
- Other parents in their family (i.e. a sister with older children)
- Other parents in their social circle
- Friends from antenatal or Plunket groups

“I had only friends and family to look to for advice, and I asked on the TradeMe forums.. but I got SLAMMED for asking about formula and told to keep pumping.”

[User (mother), New Zealand (Wellington), 12 to 24 months, follow-up formula]

Caregivers will often use more than one source of information to corroborate information and satisfy themselves that they are making the right decisions for their child’s health and wellbeing.

Caregivers’ own experiences with their child are also an information source

Caregivers will use a range of information sources as noted above to help make decisions about formula feeding. However, they also value and trust their own relationship and familiarity with their child for many issues related to formula feeding. They feel their child’s reactions and preferences for formula products (as well as any foods or other drinks) will guide them on whether they are doing the right thing.

¹⁶ As quoted earlier, note the child is 10 months old and is still using infant formula because the GP said “they are all the same.”

Some of the cues that caregivers gather from their child to use as information include:

- Does my child enjoy the taste of this formula? Does he or she drink it willingly? Or do they refuse it?
- Does my child react to this type of formula? Do they get a rash, or constipation or diarrhoea?
- What settles and comforts my child at night to help them sleep?

Some caregivers will then adjust or change their formula feeding as a result of 'trial and error' from using a particular type of formula or a particular variant with their child. Their decisions are affected both by information they receive and their own experiences with their child.

"We have used Nestle Sensitive to start with as my son had some skin issues and then moved to Bellamy's Organic. The Nestle Sensitive formula was recommended by a dermatologist that we saw. A friend recommended Bellamy's as they had similar issues with their child with their skin and after trialing lots of brands they found this one the best. So we decided to try Bellamy's first and had no issues with it."

[User (mother), Australia (Adelaide), 12 to 24 month old, toddler milk]

"He has only recently begun drinking formula on a regular basis, probably over the last 3-4 weeks. He is 7 months and he has 1 formula feed a day. This is to help him sleep through the night. I find it's a bit of trial and error to see what will work for him (more formula? More solids? More breast milk, more often). He still is drinking breast milk."

[User (mother), New Zealand (Napier/Hastings), 6 to 12 months, follow-up formula]

On-going purchase behaviour

Once the initial purchasing decision has been made caregivers tend to be consistent about the brand and type of follow-up or toddler milks they buy to provide to their child. They may have an initial period of trial and error while they determine which formula is both digestively suitable for their child and that their child is happy to drink. However, once they settle on a suitable brand and type, they will continue to purchase this on a regular basis.

"I always tend to choose the same brand. I am afraid changing brand may cause health issues to the kids."

[User (father), New Zealand (Auckland), 12 to 24 months, infant formula¹⁷]

For some caregivers, especially those with premature babies, the brand and type of product used when their child was in hospital is influential in their on-going purchase choices.

"The hospital started them [twins] on Aptamil and I saw no reason to change them to a different brand."

[User (mother), Australia (Melbourne), 12 to 24 months, follow-up formula]

"I have purchased the formula the hospital supplied. I have looked at other products and around the same price, so don't see the point in changing brand. If the normal product or formula [s26 Karicare Gold] is not available I would downgrade to the standard s26 normal formula. I haven't changed brands, as I haven't needed to."

[User (mother), New Zealand (Auckland), 6 to 12 months, follow-up formula]

¹⁷ Note this caregiver is using PediaSure and calls it infant formula.

Caregivers will tend to use the same brand at stage 2 or 3 that their child is used to at stage 1 (if they used infant formula when their child was under six months old). This is because:

- They are familiar and comfortable with the product and know how to use it
- Habit - they tend not to look around at other types unless something is 'wrong' (i.e. their child has developed allergies or decides they do not like the taste)
- They want to maintain consistency for their child in terms of flavour and texture as much as possible.

Caregivers tend not to 'shop around' for formula products – if their child has a brand or preference and is happy, caregivers do not want to risk spending money on a product that might be rejected.

Some caregivers 'downgrade' to the standard variant if the gold variant is not available.

Some caregivers have learned an expensive lesson from buying a different brand or type of formula to the one their child is used to when it has been on special', and having had it go to waste.

"I have always stuck to the same brand. A few times I went to the supermarket and other brands were on special, so I purchased them and it ended up being a waste of money as she never liked them."

[User (mother), New Zealand (Wellington), 12 to 24 months, toddler milk]

Caregivers will use two purchase strategies to avoid the risk of having to purchase an unfamiliar brand:

- Stockpiling their preferred brand
- Travelling to another supermarket.

Some caregivers ensure they have stocks of their preferred brand on hand at home. This is particularly true of those who use types such as soy, goat's milk or lactose-free versions, as these more niche types may not be commonly stocked at every supermarket.

"Now that our son has reached stage 3 it is amazing that supermarkets don't seem to stock that stage at all and eventually we found it at Big W, so now when we go near a Big W we tend to buy a few cans at a time just so we don't get caught short as we really don't want him to go through the issues he originally experienced [constipation]."

[User (mother), Australia (Adelaide), 12 to 24 months, toddler milk]

Many caregivers would rather travel further to seek out their child's preferred brand than substitute with another brand.

"I always chose the same brand, as I feel they get used to the taste of that brand. If the one I normally buy is not there I go to another supermarket to buy it."

[User (mother), New Zealand (Whanganui), 6 to 12 months, infant formula]

Use of the label in-store

Once caregivers (and more importantly, their child) are happy with a particular formula product, this product tends to be what caregivers select on an on-going basis. Caregivers use the label in store as a confirmation that they have selected the correct product based on prior decision making (for example, their usual brand, type and stage). Caregivers in this forum rarely make purchasing decisions based on label information in-store (although there are some exceptions to this general rule).

When selecting which formula products and toddler milks to buy in-store, caregivers find different parts of the packaging more useful than others to help with this selection.

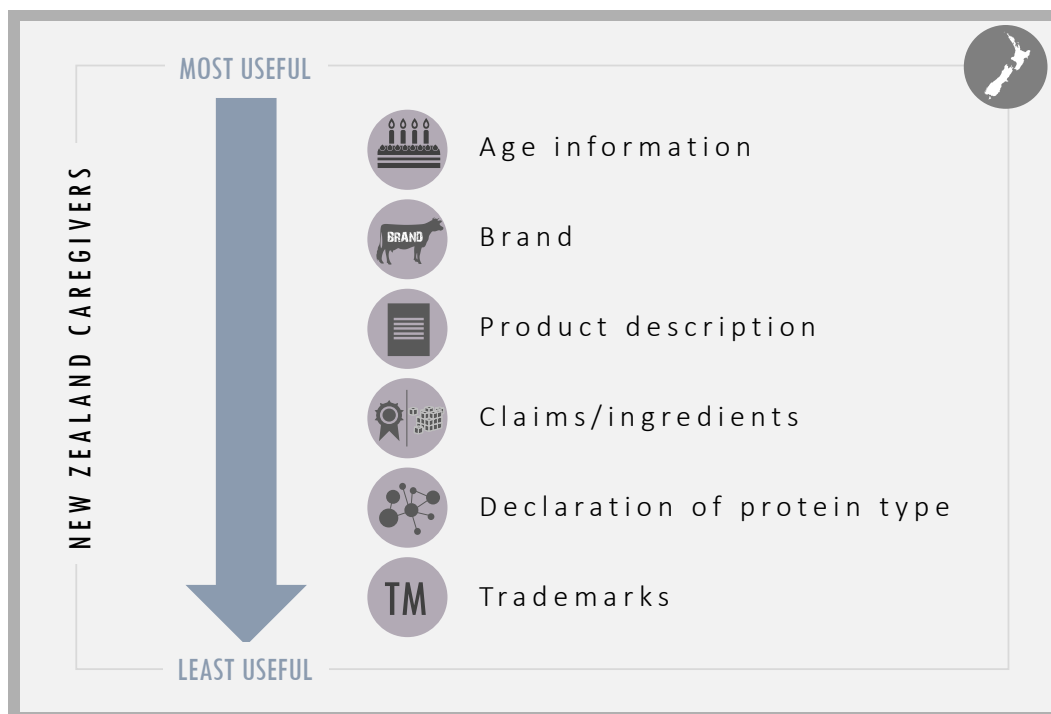
“The age information is critical, as the packaging for each brand is so similar that it would be easy to grab the wrong one.”

[User (mother), New Zealand (Wellington), 12 to 24 months, follow-up formula]

For New Zealand caregivers, the information that is most to least useful is shown in the diagram below.

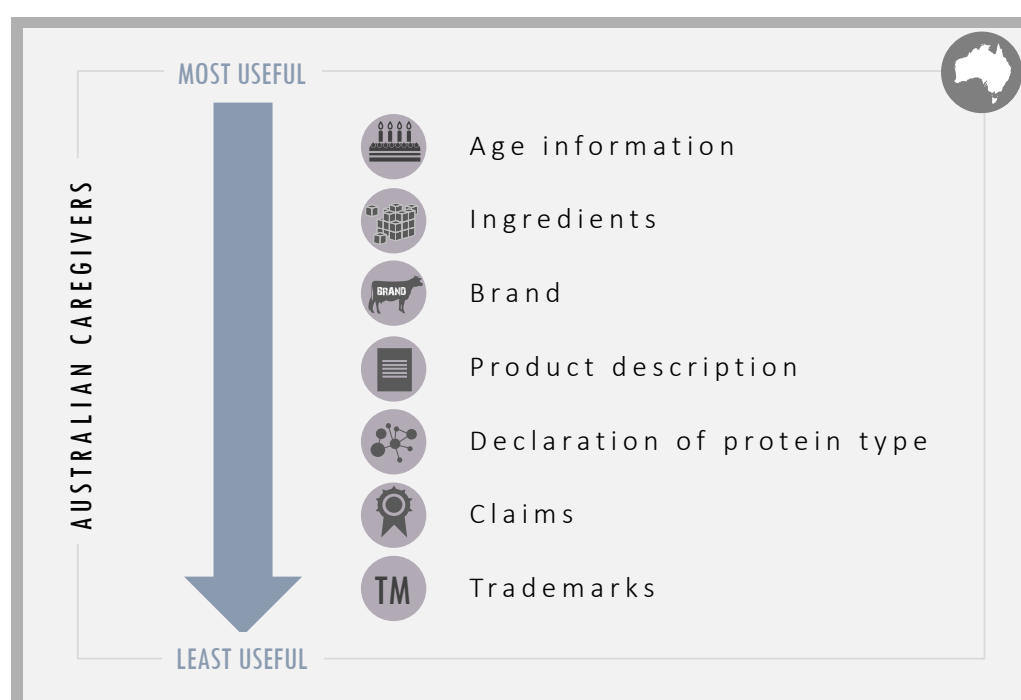
Note: the results in the following two diagrams are derived from caregivers who contributed to the New Zealand and the Australian users forums. They were asked to rate seven parts of the label on a scale of one to five, where one is not at all useful and five is very useful. The seven parts of the label that caregivers rated were brand, age information, ingredients, product description, protein type, claims and trademarks. Further data and information on this exercise are provided at appendix 2 to this report.

Diagram: most useful parts of the label for New Zealand caregivers



The information that Australian caregivers consider most to least useful is shown in the diagram below.

Diagram: most useful parts of the label for Australian caregivers



Note: Given the small number of contributors, it is not possible to make robust comparisons between what is most useful to New Zealander caregivers and what is useful to Australian caregivers.

Age information

Age information is the most important piece of information on the packaging for both New Zealand and Australian caregivers. This is mainly because they want to know they are buying the correct stage for the age of their child. As discussed earlier in the section about perceptions of different stages of formula products, caregivers consider that children's nutritional needs vary depending on their age and that the different formula product stages have different compositions to meet these needs.

"I think the age range is the most important. You want to make sure your child is getting the right formula."
[User (mother), Australia (Adelaide), 12 to 24 months, follow-up formula]

Some caregivers also use age information on the packaging to identify the correct stage they want to buy when they are in-store. As each brand's packaging can look similar across the stages, it can be easy to select the wrong stage. Age information is less important for those caregivers who are purchasing formula products that cater to all ages (e.g. some soy based products).

"I don't take any notice of age, because soy only comes in one age."
[User (mother), New Zealand (Auckland), 24 to 36 months, all stages formula]

Brand

Brand is also important for New Zealand and Australian caregivers. Brand is mainly used as a method to ensure they are purchasing the formula products or toddler milks that they usually buy. The brand name is an easy identification tool.

“Brand name was more important on the package, so I could select the brand I already knew I wanted (from recommendation).”

[User (father), New Zealand (Hamilton), 6 to 12 months, follow-up formula]

“Brand is useful because there are some brands I know my child doesn't like or doesn't take very well.”

[User (mother), Australia (Brisbane), 12 to 24 months, toddler milk]

Some caregivers place a lot of trust in a brand and feel it is important for the brand to be reputable. They rely on brand to reassure them that they are buying a product that is safe for their child to consume.

“You do have to kind of trust and rely on the company behind the brand quite a lot.”

[User (father), New Zealand (Christchurch), 12 to 24 months, toddler milk]

“Brand is very important for me. I would always go for a brand that I find trustworthy and honest, without any negative stories in the news. I prefer to buy local, rather than global, but if that's not possible then whichever brand has the best reputation.”

[User (mother), New Zealand (Tauranga), 12 to 24 months, toddler milk]

A few caregivers (mainly Australians) do not consider brand useful. They feel that a brand does not help them assess the quality of the product. Some caregivers in this forum also consider that brand does not denote ‘quality’ as all brands are of equal quality.

“Brand isn't as important, as we know with no name products – they come from the same production line just a different label.”

[User (mother), Australia (Melbourne), 24 to 36 months, toddler milk]

Product description

Within the forum, caregivers interpreted the product descriptor to show:

- Overall category definition (i.e. this is a tin of formula)
- Type (i.e. this is a tin of organic, soy or lactose-free formula)
- Product name (i.e. this is a tin of infant formula, follow-up formula or toddler milk).

The product description is useful to ensure caregivers know what they are buying and that it is the correct type (e.g. soy, organic) and stage for their child. The product description means caregivers can easily identify the formula product they need to purchase.

“I found this [product description] somewhat useful as it explains in a word what the product is, helping you establish what you are buying.”

[User (mother), New Zealand (Tauranga), 6 to 12 months, follow-up formula]

Some caregivers feel the product description is unnecessary and provides more information than they need. For these caregivers, the product description is simply stating the obvious.

“The product description in some cases just states the obvious (e.g. infant formula) and does not provide any information that would be overly useful.”

[User (mother), Australia (Melbourne), 6 to 12 months, all stages formula]

Ingredients

Many caregivers find the ingredients information useful. This is because they want to know the composition of the product so that they:

- Know what and how much of each ingredient their child is consuming
- Can avoid any ingredients to which the child may be potentially allergic
- Can avoid any ingredients that they do not want their child to consume too much of (e.g. a few Australian users are concerned about sugar consumption and a few New Zealand users are concerned about artificial flavours and colours)¹⁸
- Can compare products to find the best composition for their child.

“The ingredients are important, as I like to know what nutrients are included and what level of each, so as to compare with other brands.”

[User (mother), Australia (New South Wales), 6 to 12 months, follow-up formula]

“Very important to check ingredients and type of protein if there is a tendency of allergies in family. In my case my older child has a SOY allergy (not dairy!!), so I check labels automatically for other additives.”

[User (mother), New Zealand (Whanganui), 6 to 12 months, infant formula]

“I find the ingredients list most important, as I do with all foods. You don't want too much sugar.”

[User (mother), Australia (Melbourne), 12 to 24 months, toddler formula]

“The ingredients list is important only because I really just want to know what we, and especially our babies, eat. I haven't found anything suspicious in the formula tins. But, I still like to check new products in case there are flavour enhancers, artificial colours or artificial flavours, which we would avoid like plague.”

[User (mother), New Zealand (Dunedin), 12 to 24 months, follow-up formula]

Those caregivers who find the ingredients information less useful (more commonly the New Zealand users) do so because they:

- Believe most formula products and toddler milks are made with the same ingredients
- Do not know what most of the ingredients are
- Are not sure what is meant to be in the ingredients, so the list seems meaningless to them
- Trust the brand they purchase, and therefore the ingredients that are used
- Do not have children who experience allergies or food intolerances.

“Most brands have the same ingredients, so don't pay any attention to these.”

[User (mother), New Zealand (Auckland), 6 to 12 months, follow-up formula]

“I wouldn't know what should be in there, so actual ingredients don't mean much. My trust in the brand means I have made the assumption the ingredients are the right ones.”

[User (father), New Zealand (Hamilton), 6 to 12 months, follow-up formula]

¹⁸ There are no common themes about which caregivers express this preference.

Claims

Some caregivers find the claims information useful to help them easily identify the broad benefits of one product compared to another.

"Helps you to see the benefits of this particular formula over another."

[User (mother), New Zealand (Tauranga), 6 to 12 months, follow-up formula]

They also feel that if their usual brand is not available, then the claims information helps them to choose another brand that is similar.

"These are somewhat useful, if for any reason, I need to try a different brand, so that I can easily establish the benefits."

[User (mother), New Zealand (Auckland), 6 to 12 months, follow-up formula]

Other caregivers are more skeptical and do not believe the stated claims on the label. They perceive most brands make similar claims to each other and caregivers feel these claims are mostly marketing tactics to try and encourage consumers to purchase the product. They consider the claims are not supported by evidence.

"I am always dubious about claims companies make, certainly if it is for a specific purpose, such as constipation - that is one thing. But some of the other things about [brain] development and the like, are a bit far-fetched - to say that one product gives more assistance than another when most are only different in ingredients by a milligram or so."

[User (other relative), Australia (Adelaide), 12 to 24 months, follow-up formula]

"I don't put much faith in the different claims each makes and especially not in words and phrases they make up, as these seem 'gimmicky' and never give you the whole picture."

[User (mother), Australia (Melbourne), 6 to 12 months, follow-up formula]

"I have put claims down towards the bottom of importance as I have been around long enough now to know that these claims can be very misleading and therefore I usually take these with a grain of salt."

[User (father), New Zealand (Hamilton), 24 to 36 months, toddler milk]

"Trademark and claims are least useful as they really are just the type of marketing I try to ignore. For example, 'Immunocare: nutritionally supporting your toddler's immune system' - this is the first time I read it in the tin we have at home. Seriously, what is this claim based on?! ... If there was some scientific backing for these claims then maybe I'd care."

[User (mother), New Zealand (Dunedin), 12 to 24 month, follow-up formula]

Declaration of protein type

Generally, caregivers do not find the declaration of protein type as useful as other parts of the label. This is often because caregivers do not know what 'protein type' is, and it is therefore meaningless to them.

"Declaration of Protein - not sure what this is and have never looked at this part."

[User (mother), New Zealand (Tauranga), 6 to 12 months, follow-up formula]

This information is useful if caregivers have a child that has allergies or food intolerances to specific types of proteins. A few Australian caregivers are specifically searching for whey-based formula, rather than casein-based, as they believe this protein type is easier for their child to digest.

“For babies with a lactose intolerance or those looking particularly to avoid soy, the declaration of protein is useful immediately without having to scour the ingredients list of each brand in deciding what to buy.”

[User (mother), Australia (Melbourne), 6 to 12 months, all stages formula]

“When starting out with formula, I found the declaration of protein type was useful as I knew that whey-dominant formulas were easier for younger bubs to digest than casein-dominant formulas and wanted to purchase a whey dominant formula.”

[User (mother), Australia (Sydney), 6 to 12 months, infant formula¹⁹]

Trademarks

Trademarks are rated as the least useful part of the package for caregivers. Similar to the claims information, many caregivers consider this information is simply a marketing tool. They do not tend to feel that these trademarks mean the formula product or brand is better quality.

Caregivers also believe it is too difficult to compare trademarks across products, because there are too many different trademarks.

“Trademark examples are not important to me as they may not be independently tested.”

[User (mother), Australia (Perth), 12 to 24 months, toddler milk]

“The trademarks are quite useless, as different brands all have different trademarks, which do not offer any comparison or useful ranking of the product. They are more of a marketing tool.”

[User (mother), New Zealand (Auckland), 12 to 24 months, toddler milk]

SECTION SUMMARY

Caregivers use a range of formal and informal sources to guide their decisions about formula use. Before they decide what formula to use they tend to gather recommendations from both medical experts and informal networks. Purchasing decisions are usually made when a child is first introduced to formula and caregivers tend prefer to repeatedly purchase the same brand of formula, unless the child is experiencing adverse effects.

Caregivers prefer to select the same brand and type as they move through the stages from infant formula to follow-up formula, to toddler milk in order to avoid the potential for digestive or preference concerns with their child. Some ‘shopping around’ may occur at the start of the period of providing formula until any issues settle down.

Ultimately caregivers will also use their own child’s reactions and behaviour to determine their decision-making once a formula has been trialled

Caregivers tend to make purchasing decisions before entering the store and use the labeling information in-store to identify the product they have already decided to buy. They find it useful to distinguish between variants of a brand. As such, age information, brand, product description and the list of ingredients the most useful parts of the label in-store. Claims are only considered to be useful when their preferred formula is unavailable, but some caregivers are skeptical of this information.

¹⁹ Uses an organic formula, which is from birth to 12 months.

Post-purchase label usage

This section describes how caregivers are using information on the packaging post-purchase. This encompasses:

- What parts of the label are used or read in-home
- Use of the preparation guide
- Use of the feeding guide
- Additional information requirements.

The labels are not commonly used or read in-home

With the exception of the preparation and feeding guides (discussed next), caregivers rarely refer to the follow-up formula and toddler milks label once they have made the purchase. This is because caregivers are likely to have read at least some of the information before purchasing the product or while browsing in-store.

Once I got home I just checked how many scoops I should to how much water and that was it."

[User (mother) New Zealand (Auckland), 12 to 24 months old, toddler milk]

Once caregivers are familiar with the brand, type and stage of follow-up formula or toddler milks, and once their child is happy with the selected product, caregivers do not tend to have a need to re-read the information on the label.

"To be fair, once I get home I would not look at the label again."

[User (father), New Zealand (Hamilton), 24 to 36 months, toddler milk]

"I don't use this information when I get home, as I would've already looked at it at the supermarket if I was buying a different brand."

[User (mother), New Zealand (Upper North Island), 6 to 12 months, follow-up formula]

"Especially when continuing to buy the same formula, most parts of the label are no longer relevant or useful after the purchase."

[User (mother), Australia (Melbourne), 6 to 12 months, all stages formula]

One or two of the caregivers in the Australian forum mentioned checking the expiry date.

"I obviously look at the expiry date to check I'm not giving my child something out of date (in case I opened the can some time ago). I always check the expiry date on the can before buying it at the shops too."

[User (mother), Australia (Sydney) 12 to 24 months, infant formula/follow-up formula stage 1 and 2 from birth to 12 months]

Occasionally, some caregivers will refer to the label. This is usually triggered by some form of change or concern about the product. For example:

- The child is switching to a new brand or stage of formula or toddler milks
- The child is showing signs of a possible reaction to the product (e.g. digestive issues, allergic reaction)
- An overseas product safety scare (e.g. the 2008 scare of formula in China that contained melamine).

“The only main one I would look at is the age stage and keep an eye on it and when it would be time to change to another follow-on formula.”

[User (mother), Australia (New South Wales), 6 to 12 months, follow-up formula]

“If my son started to develop allergies (with eczema this may become reality), then I may look at the ingredients in more detail once I got home and do some internet research.”

[User (mother), New Zealand (Tauranga), 6 to 12 months, follow-up formula]

“The only information I will look for, once I get home, is the ingredients list if my child has an upset tummy.”

[User (mother), Australia (Perth), 12 to 24 months, follow-up formula]

“I don't keep re-reading it, unless I hear about a scare or watch a programme or read a book on what is good/bad for our little ones.”

[User (mother), New Zealand (Hamilton), 6 to 12 months, follow-up formula]

Use of the preparation guide

Caregivers consider the preparation guide to provide three key instructions:

1. How to sterilise bottles
2. Using cooled boiled water
3. The ratio of powder to water.

These instructions are particularly important for caregivers who are new or unfamiliar with the process of preparing follow-up formula and toddler milks. Without the preparation guide, caregivers would not know what to do. The preparation guide also gives these caregivers reassurance that they are preparing the formula as they are meant to and so that it is safe for their child to consume.

“It was reassuring to follow the guide and know that we were preparing his feeds correctly and safely.”

[User (mother), Australia (Melbourne), 6 to 12 months, all stages formula]

However, after preparing the formula a few times, it soon becomes a habit. Caregivers feel they no longer need to refer to the preparation guide.

“Why would I refer to this each time I make the formula? It's been the same for years! I know it's 50ml of water per scoop of powder. Important to keep it on the tin though for newbies.”

[User (mother), New Zealand (Wellington), 24 to 36 months, toddler milk]

“It's ingrained - 50mls water, one scoop. I just do it.”

[User (mother), New Zealand (Tauranga), 6 to 12 months, follow-up formula]

"In the first place I used to refer to the preparation guide, particularly when I first made my daughter's milk. It was obviously important at the beginning to know how to prepare a bottle, and follow the guide and know that we were preparing their feeds correctly and safely. But, now that she grown up and I've been preparing bottles for a while, I know what to do now and no longer need to consult the tin."

[User (mother), Australia (Queensland), 24 to 36 months, toddler milk]

The preparation guide is also useful in other circumstances, including:

- When caregivers change to a different brand or stage. They will refer to the preparation guide to check whether or not the ratio of powder to water is different to the brand or stage they were previously using.
- For other caregivers who does not often prepare follow-up formula or toddler milks.

"I always look at the preparation guide every time a new stage milk product is being tried at home, but after sometime, I don't look at anymore."

[User (mother), New Zealand (Palmerston North), 24 to 36 months, toddler milk]

"It is always useful when someone not used to making bottles, does it (like a friend or babysitter)."

[User (mother), Australia (Sydney), 24 to 36 months, toddler milk]

Caregivers feel the instructions about sterilising and using cooled boiled water are more important when the child is younger. As their child gets older they are less particular about ensuring bottles are sterilised and whether boiled water is used.

"I was more careful following the instructions when my daughter was younger, but now she's 18 months old I'm not as pedantic."

[User (mother), New Zealand (Auckland), 12 to 24 months, toddler milk]

While most caregivers follow the ratio of powder to water consistently, one caregiver sometimes reduces the quantity of powder in an attempt to make the formula last until she can afford to buy more. She is not concerned about preparing the formula in this way, because there is no effect on her child's growth and development.

"My daughter is now almost two and I don't actually go by the prep guide anymore. I put in either the right amount of five scoops or put in less (three to four scoops), especially when I am running low and trying to make it last til next pay day. I don't feel it is dangerous at all seeing as she is also on solids and eating really well. The formula she has is not a replacement for meals, but more for comfort when she goes to sleep and to top up on nutrients. I cannot see any problems with her growth and development because of it."

[User (mother), New Zealand (Auckland), 12 to 24 months, toddler milk]

Use of the feeding guide

Similar to the preparation guide, most caregivers refer to the feeding guide when they are new to preparing follow-up formula and toddler milks. At first they find the feeding guide useful to provide them with an idea about the quantity they should be offering their child.

“In the beginning, it was hard to know how much to feed my little one as he had been exclusively breast fed since birth. I started by following the guide.”

[User (mother), Australia (Sydney), 6 to 12 months, infant formula²⁰]

“When I first got baby²¹ I was a little unsure about how much to give her and how often as I had always breast feed my babies. I found the guidelines along with the help of the Plunket nurse most valuable in those first few months.”

[User (other relative), New Zealand (Hamilton), 12 to 24 months, toddler milk]

Initially, some caregivers can become anxious when their child consumes more or less than the amount stated on the feeding guide. At first, these caregivers do not realise that the feeding guide is only a guideline of the quantities the child might consume.

“As a new mother I felt that she HAD to have what was stated to get the required nutrients to put on weight and therefore was trying to force feed her formula.”

[User (mother), Australia (Sydney), 24 to 36 months, all stages]

“I found that he was not drinking as much at what the tin said he 'should be', which started stressing me out.”

[User (mother), Australia (Sydney), 6 to 12 months, infant formula²²]

“I noticed we did waste a lot of formula early days when I was using it as a law... and getting worried if she wouldn't take what the tin said. Until one day I actually took in that the guide was just that - a guide and your baby could take more or less. In the early day newborn fog, I would have glossed over that info many times and not taken it in.”

[User (mother), New Zealand (Wellington), 12 to 24 months, toddler milk]

Once caregivers become more familiar and confident with preparing follow-up formula and toddler milks, they are guided by their child's appetite. Caregivers come to realise that some children consume more or less than the stated amounts on the feeding guide because:

- The child's appetite is generally smaller or larger than the feeding guide provides for
- The child may be hungrier than usual due to factors, such as experiencing a growth spurt or being extra thirsty due to hot weather
- The child may be less hungry than usual due factors such as being unwell or teething.

²⁰ This caregiver uses an organic formula, which is from birth to 12 months.

²¹ This caregiver has had care of her grandchild from three months old.

²² Ibid.

"I did use to stick to the feeding guide like it was the law, but then when we hit our first 'growth spurt' it all went haywire and she was almost doubling the recommended guide, and then teething, and it would be less."

[User (mother), New Zealand (Wellington), 12 to 24 months, toddler milk²³]

"I think the feeding guide should explain that the weather will greatly affect the amount your kid needs to drink, especially when exclusively formula fed. When my son was younger (he was born just before summer) and the weather went from 30+ one week to 20-25 the next, it took me a bit to figure out why his milk requirements went down by a third. Seems logical now, but when you are sleep deprived and trying to get used to having someone rely on you 100%, logic sometimes takes a bit longer."

[User (mother), Australia (Melbourne), 6 to 12 months, follow-up formula]

Caregivers who mix fed are unlikely to refer to the feeding guide. This is because they perceive the feeding guide is a guide for those who are solely using follow-up formula and toddler milks, rather than as a supplement to other dietary sources.

"I don't exclusively formula feed, so I don't look at the number of feeds per day."

[User (mother), Australia (Adelaide), 6 to 12 months, infant formula]

"As we only have one feed per day, and my baby also has breast milk and solid foods, I don't worry too much about specific amounts to feed her. I mix the amount of powder and water correctly, but I don't worry too much at all about how much she consumes."

[User (mother), Australia (New South Wales), 12 to 24 months, toddler milk]

"The feeding guide, as per how many bottles per day, I do not use as it is only a supplement to breast milk."

[User (mother), New Zealand (New Plymouth), 6 to 12 months, follow-up formula]

Finally, some caregivers are slightly sceptical of the feeding guide. These caregivers feel that it might be a marketing tactic to encourage caregivers to provide more product to their child, and thereby purchase more.

"I almost have never made up and fed her formula according to these guides. And sometimes it even makes me feel that these guides are just over-stated intentionally [by the manufacturers], so we all waste the left over formula and use up the tin quicker to buy new ones."

[User (mother), New Zealand (Auckland), 12 to 24 months, follow-up formula]

Additional information requirements

Most caregivers consider the information currently provided on labels is sufficient. They may not be able to think of any additional information they need on the label or they may feel that adding information to the label will make it even harder to find the information they want.

"The information on the label is very in depth and I can't think of anything else they could possibly add."

[User (father), New Zealand (Hamilton), 24 to 36 months, toddler milk]

"I think these products already contain enough information, especially for sleep deprived new mums, and adding more information may make choices confusing rather than easier."

[User (mother), Australia (Melbourne), 6 to 12 months, all stages formula]

²³ Note this caregiver reported using both follow-up formula and toddler milk.

Some caregivers can identify additional information that might be useful to have on the label. This includes information that will reassure them or provide them with additional knowledge and support. Some caregivers also mention changes to the label for their own practical purposes (e.g. to record information such as the date of opening).

Additional information to reassure users

A few caregivers identify the following additional information:

- Where product was made and where ingredients are sourced²⁴
- Statement declaring that the product is fit for human consumption
- Evidence of claims
- Identification of which product is best for allergies.

“Country and path of origin of ingredients, as well as made in information, would be nice.”

[User (mother), Australia (Melbourne), 24 to 36 months, toddler milk]²⁵

“Some of the ingredients look as if it would be the same stuff in cleaning products, so maybe a note that everything in here is safe for human consumption? Must admit that some of those sodiums and sulphates look a bit scary to me.”

[User (mother), New Zealand (Wellington), 12 to 24 months, toddler milk]

“When making a marketing claim or adding a special ingredient, maybe the tin can also provide a footnote of references to back up the claim or the reason for the special ingredient (e.g. why the particular brand is premium or why that certain protein type was used etc.). This is probably just for those more technical persons like me, who don't like empty words at all.”

[User (mother), New Zealand (Auckland), 12 to 24 months, follow-up formula]

“With the allergies that my daughter has, it would be good to see which brands and types of formulas may be good for her allergies, e.g. appropriate for dairy intolerant children, appropriate for soy intolerant or children with eczema.”

[User (mother), New Zealand (Auckland), 12 to 24 month, toddler milk]

²⁴ Note: The fieldwork for this research was undertaken prior to the August 2013 recall of some New Zealand formula products due to a botulism contamination in whey protein.

²⁵ Note this is listed as Stage 4 product (Aptamil Gold + Junior (4) from two years).

Additional information to provide caregivers with information and support

Some caregivers would like the following additional information on the label:

- Clear information about any changes to the product
- Differences between gold and standard varieties
- Website links and contact numbers for further support
- When to transition premature babies to the next stage of formula or toddler milks
- How much children should consume for their age (particularly for toddler milks)
- Ingredients listed with percentage of daily intake per 100ml (particularly for follow-up formula and toddler milks).

"The formula I use changed the scoop size when he was at stage two. The tin had pictures of 'new improved scoop' inside but didn't clearly outline (in my view) that it went from a 50ml per scoop to a 30ml per scoop... So, my recommendation is that when changes are made to anything in a formula tin, it is very clear as to what those changes are."

[User (mother), New Zealand (Wellington), 12 to 24 months, toddler milk]

"Maybe a comparison of the standard to gold varieties might be useful. I have no idea why they are different."

[User (mother), New Zealand (Auckland), 24 to 36 months, all stages formula]

"Maybe some www links on the packaging for websites that are aimed at parents to share information and get support, when it comes to feeding, could be useful."

[User (father), New Zealand (Christchurch), 12 to 24 months, toddler milk]

"Consumer helpline numbers should be included (I think most brands already do this), but also publishing the number of the Maternal and Child Health Hotline, Raising Children website or other useful (non-brand related) resources for new parents would be very useful."

[User (mother), Australia (Melbourne), 6 to 12 months, all stages formula]

"My baby was prem. It was confusing to know when to change him over to the next stage - i.e. when he was chronologically at that age or at his corrected age. I've talked to other mums of prem babies and they didn't know either. Information on this could be useful."

[User (mother), New Zealand (Wellington), 12 to 24 months, toddler milk]

"Perhaps adding information about the breakdown of age and how much they should be consuming, particularly when they are drinking the toddler milks. This might be helpful."

[User (mother), Australia (Melbourne), 12 to 24 months, toddler milk]

"I think it could be useful if the ingredients were listed with % daily intake per 100mL in addition to average quantity, as they are on nutrition labels of other prepared foods. This could be useful particularly for follow-on stages where babies are eating solids also, so parents have some idea how much of the recommended daily intake of particular substances their babies are getting from the formula."

[User (mother), Australia (New South Wales), 12 to 24 months, follow-up formula]

Changes to the label for practicality purposes

While it is not about providing additional information on the label, some caregivers consider that it would be valuable to have a clear, white space on the tin. This would allow them the space to write the date the tin was opened and to write feeding instructions for non-main caregivers. Australian caregivers are particularly keen for this suggestion.

“It could be useful to have an area on the can where you can write the date you opened the can (as you should discard it within 28 days of opening I think), so it would be there for everyone to see.”

[User (mother), Australia (Sydney), 12 to 24 months, infant formula]²⁶

SECTION SUMMARY

The information that is most useful in-home are the feeding and preparation guides. Caregivers do not refer to much of the other information on the label to any great extent once they are home. Their information needs are mainly met prior to purchase or when in-store. However, they will use the feeding guide and the preparation guide in the early stages of usage to ensure they prepare and use the product safely and in accordance with guidelines.

Caregivers have limited needs for further information on the label but provide some suggestions that would give them more reassurance about using follow-up formula or toddler milks.

²⁶ Note this caregiver is using an ‘all stages’ formula.

Appendix I – Detailed methodological approach

This appendix provides detailed information on the process used to undertake this qualitative research, including a description of the research tool used, the sample framework for the project, and the recruitment process.

e-Qual, an online discussion forum

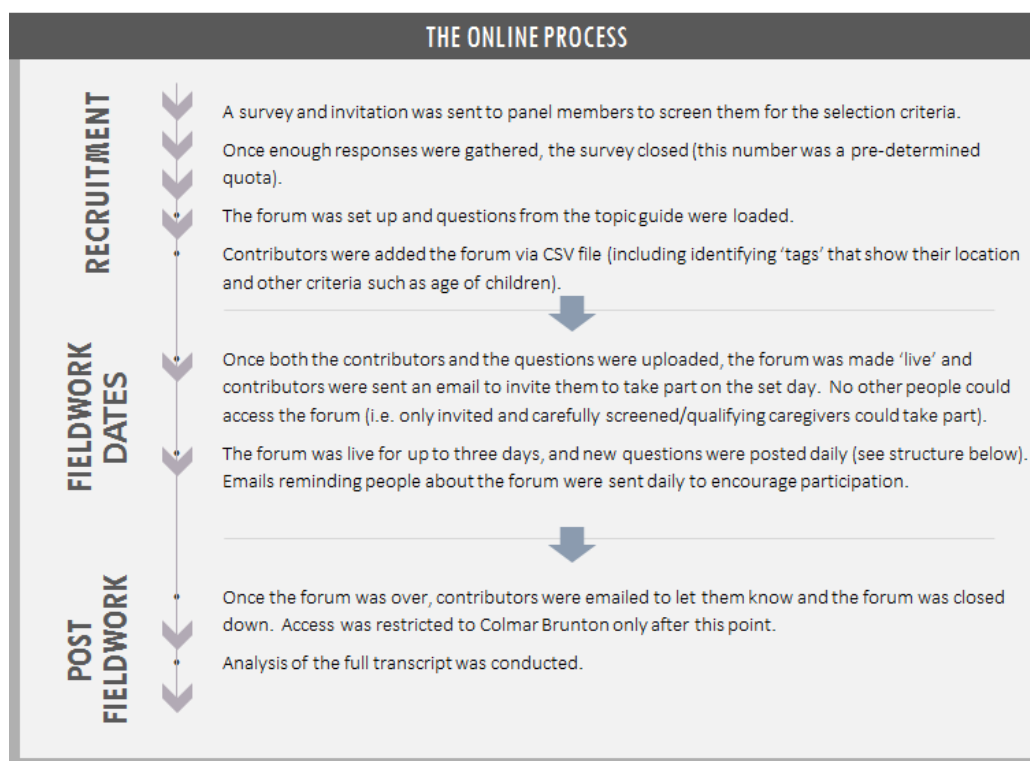
An online qualitative methodology was selected for this research project as it offered a range of benefits for the project. These benefits included:

- An ability to ask in-depth questions of caregivers
- Caregivers being located anywhere in New Zealand or Australia
- An ability to use polling tools (for example, to gather an indicative levels of opinion).

An e-Qual is a secure online forum (essentially a secure website) where caregivers respond to questions on a given topic. The e-Qual user interface is a user-friendly online website, which enables caregivers to log in at their convenience and participate in the ongoing discussion by answering the questions and commenting on other caregivers' posts. Once live, the forum is open to caregivers at all times until the forum is officially closed. In addition, the MPI project team and partner agencies observed the forum in real time.

Caregivers' comments are anonymous, i.e. they choose a username which they are known for the entire discussion. This promotes a more candid discussion between contributors and allows them to express views that may not be socially acceptable. Moderators from Colmar Brunton uploaded pre-selected questions daily and viewed comments from the forum, probing where required.

The way the forum worked was as follows:



Sample framework

Caregivers who used (users) and those did not use (non-users) follow-up formula and toddler milks in their children's diet participated in the online discussion. They were divided into three separate forums:

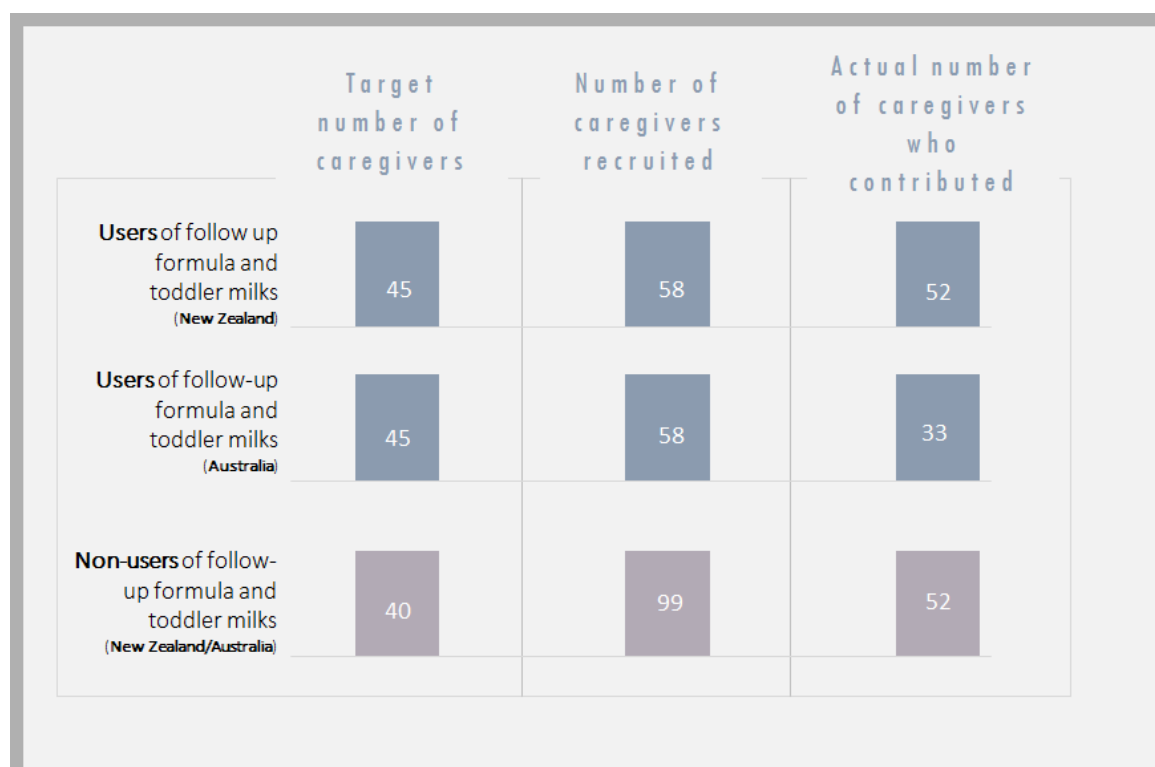
- **New-Zealand-based users** of follow-up formula and toddler milks
- **Australian-based users** of follow-up formula and toddler milks
- **Non-users** of follow-up formula and toddler milks (based in New Zealand and Australia) – this forum was partitioned between contributors who had never used formula products in their children's diet and those who had done so in the past, but no longer did.

At the design phase of this research, each of the three forums were set a target number of caregivers to contribute to the forum. To achieve this number of caregivers for each forum, we over recruited the number of caregivers invited to take part in each forum. This allowed for potential drop outs once the forum started.

The table below provides a breakdown of the total sample structure by the:

- Target number of caregivers to contribute to each forum (this was prior to starting fieldwork)
- Number of caregivers recruited (i.e. invited) to take part in each forum
- The actual number of caregivers who contributed to each forum (note the figure is broken down by age in the next diagram)

Diagram: Caregivers targeted, recruited and contributed



Note that the difference between the number of caregivers recruited and the final number of contributors is the total number of drop outs. These consist of caregivers who:

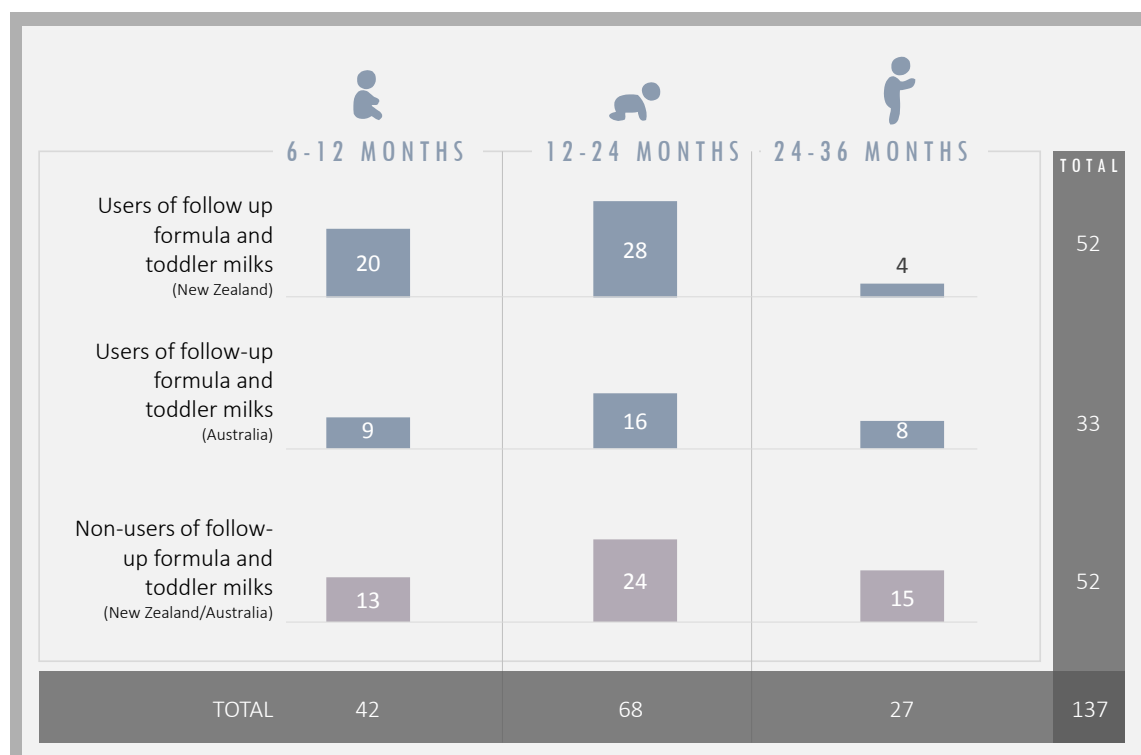
1. agreed to take part but failed to register for the forum during the fieldwork period, or
2. caregivers who did register and logon but failed to answer all the questions over the fieldwork period.

The majority of drop outs were due to the first reason above.

Caregivers who contributed to the three forums were the primary caregiver of at least one child aged between 6 and 36 months old.

The diagram below provides a breakdown of the caregivers who contributed to each forum by the age of their youngest child in the 6 to 36 month age range who uses formula products.

Diagram: forum contributor numbers by age of youngest child who uses formula products



A full breakdown of the caregivers within each forum is provided at appendix VI.

During recruitment of caregivers, a mix of the following was aimed for:

- Gender, ages, ethnicities and incomes of caregivers (for the New Zealand and Australian forums)
- Number of children within the age range
- Locations (nationwide for the New Zealand forums and across the six states for the Australian forums)
- Employment situation, including their arrangements with the child/ren (e.g. if they look after the child/ren full-time).

Quotas were only set for top level criteria (such as user/non-user, location and age of child). Other criteria use what are known as 'soft quotas', There were used to ensure group diversity but did not have targets set based on these criteria.

Recruitment using email

Colmar Brunton used the services of Research Now to recruit contributors to the forum. Contributors were sourced from Research Now's consumer panels in New Zealand and Australia. A recruitment guide was written and programmed as an online survey for panel members who were recruited by email. Depending on their answers to the online survey, panel members were filtered into the appropriate forum.

Qualifying criteria

To qualify for one of the three forums, panel members completed an online survey answering the following questions:

- Are they the main caregiver for at least one child aged between six and 36 months?
- What is their relationship to the child/ren?
- What are the child/ren's childcare arrangements?
- What type of food do they provide the child/ren?
- If they do not use formula, have they ever used it?
- Demographic information:
 - Employment situation
 - Income
 - Age
 - Ethnicity
 - Location.

Discussion guides for the forums

The discussion guide is a series of questions that are developed to reflect the research objectives. For this project, two discussion guides were developed by Colmar Brunton and reviewed and approved by MPI:

- One guide was aimed at caregivers **who use formula**. This guide contains a series of questions that were released daily to contributors over a three-day period.
- The other guide was aimed at caregivers **who do not use formula**. This guide contains four questions that were released for a one-day forum.

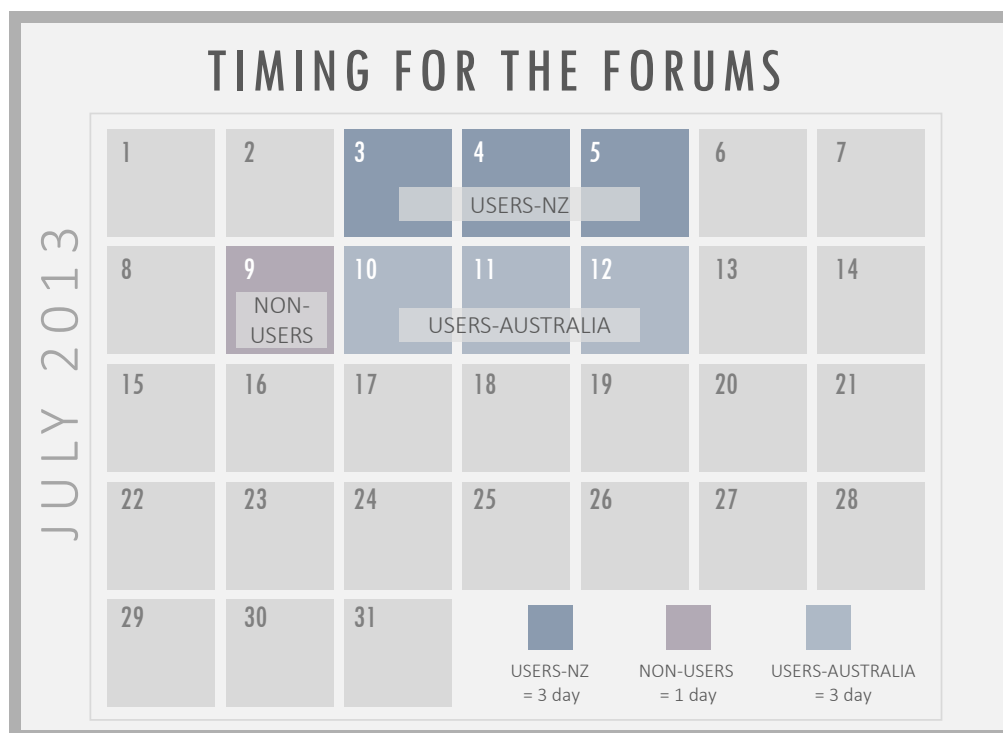
The two types of caregivers were separated to ensure that each forum was relatively homogeneous and because different questions were asked in each forum to understand the caregivers' different feeding situation. This also ensured caregivers' usage choices did not become a contentious issue within the discussion.

The discussion guides for each forum are appended at appendix III (a) and III (b).

Fieldwork timeline

The recruitment of caregivers occurred between 24 June and 1 July 2013. Once caregivers had completed the online survey screener and qualified, they were told the date of the forum and given further instructions for registering and logging in to the appropriate forum for their circumstances.

The timelines for the fieldwork period is provided in the diagram over the page.



Qualitative analysis and reporting process

The transcripts of each of the three forums were analysed by two senior qualitative researchers. A third qualitative researcher had oversight of the recruitment process, sample, and final contributor numbers and criteria.

The analysis process started during the forums as comments from contributors were added, to ensure question areas and probes evolved as the forum progressed. Once the forum was closed and finalised the process for analysis was as follows:

- Each researcher read the transcripts individually for themes.
- The researchers then convened to discuss the overarching themes and research questions. This was a formal analysis session that provided the opportunity to:
 - Compare findings and share themes
 - Review comments and ensure biases were not added to the analysis
 - Ensure robust debate about any comments and themes that emerged.
- Researchers then fully analysed the transcripts. This involved filtering the comments and questions in a number of ways (for example, by users or non-users, by age of the child, or by location)²⁷. Analysis identified common themes or comments by caregiver type (for example, do Australian users use formula products in a different way to New Zealand users?). An analytical framework was developed to group and understand caregivers. This consisted of the framework used to talk about caregivers' attitudes and perceptions of follow-up formula and toddler milks in the section of this report about the perceptions of follow-up formula and toddler milks.

²⁷ Note that filters are not applied systematically, and can include looking at just one caregiver. The filtering process is used to check themes and views, and is not intended to replicate statistical tools in any way (for example Toolbox or SPSS)

- Thematic analysis allowed each researcher to pull out comments and text that answered the research objectives. It also allowed the ability to track individual comments from caregivers, so any themes that emerged from all their comments in the forum could be analysed for context.
- Once analysis was completed, researchers reconvened to discuss the findings, check each other's thoughts, and further refine and develop any frameworks. The researchers also meet with the MPI project team to discuss initial findings and discuss the attitudinal framework (in the section of this report about the perceptions of follow-up formula and toddler milks).
- A report structure was developed and agreed with the MPI project team.
- Findings and analysis, including supporting evidence from attributed quotes, were written up.
- Members of the research team reviewed the full report and checked attributions and caregiver criteria (for example, noting and confirming that we had identified the formula stage usage correctly as highlighted in the main body of the report).
- Reference checks between the forum, transcripts, and the recruitment screener were also completed to ensure accuracy.

MPI have been provided transcripts of the three forums under separate cover.

Appendix II – Use of the label in-store

This appendix provides further detail about which parts of formula product labels users consider more or least useful in assisting them with purchasing decisions in-store.

To explore users' perceptions about which parts of the package they found most to least useful, they completed an activity using a sorting tool.

Users who contributed to the New Zealand and the Australian forums were asked to rate seven parts of the label on a scale of one to five, where one is not at all useful and five is very useful. The seven parts of the label that caregivers rated were brand, age information, ingredients, product description, protein type, claims and trademarks.

Detailed results

The two tables below show the individual results of the sorting tool activity for the 50 New Zealand contributors and the 30 Australian contributors. The figures in the tables below provide the number of users who rated the level of usefulness by each of the seven parts of the package.

Table 1. New Zealand forum

NEW ZEALAND	Brand	Product description	Claims	Trademark examples	Age information	Declaration of protein type	Ingredients
1 (not at all useful)	1	5	5	10	1	10	3
2	6	11	12	15	0	12	11
3	7	12	15	16	4	13	14
4	16	12	12	6	8	8	15
5 (very useful)	20	10	6	3	37	7	7
Total of contributors	50	50	50	50	50	50	50
<i>Means</i>	<i>4.0</i>	<i>3.2</i>	<i>3.0</i>	<i>2.5</i>	<i>4.6</i>	<i>2.8</i>	<i>3.2</i>

Table 2. Australian forum

AUSTRALIA	Brand	Product description	Claims	Trademark examples	Age information	Declaration of protein type	Ingredients
1 (not at all useful)	0	1	4	7	0	1	0
2	2	4	4	9	0	8	2
3	8	4	12	9	4	8	4
4	11	12	4	0	6	5	9
5 (very useful)	9	9	6	5	20	8	15
Total of contributors	30	30	30	30	30	30	30
<i>Means</i>	<i>3.9</i>	<i>3.8</i>	<i>3.1</i>	<i>2.6</i>	<i>4.5</i>	<i>3.4</i>	<i>4.2</i>

Appendix III (a) – Users topic guide

DISCUSSION GUIDE

Project	Follow-up formula - users (V5) 27 June 2013 109104902			
Commencing	Two forums – see dates below depending on location			
Duration	3 days			
Moderator[s]	Céline Yockney and Venise Comfort			
Tools	<input type="checkbox"/> Mapping (10)	<input type="checkbox"/> Sorting (12)	<input type="checkbox"/> Drag n' Drop (10)	- Other


NEW ZEALAND USERS Wednesday 3rd to Friday 5th of July (3 days)

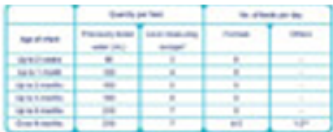

AUSTRALIA USERS Wednesday 10th to Friday 12th of July (3 days)

Forum Introduction	Objective
<p>Welcome to this forum and thank you for taking part. We're going to talk about your youngest six month to three year old child, and what types of food and drink they consume. We're interested in your thoughts on what is important to you when deciding on how to feed your child.</p> <p>We're interested in your thoughts on what is important to you when deciding on how to feed your child. Particularly when you think about what to feed your youngest child (aged 6 months – 3 years) who drinks infant formula, follow on formula or toddler milk products. What kinds of things you take into account?</p> <p>This forum is going to run for three consecutive days, from [DATE TO CHANGE DEPENDING ON LOCATION]. We will post new questions each day. The questions will be loaded in the morning and you will get an email reminding you to log on and comment.</p> <p>We invite you to log in at least once a day to answer the questions and share your thoughts, but also read what other parents and caregivers write and comment on their posts. We are interested in what you think of others' views and experiences, as well as your own.</p> <p>The forum is informal, you will be completely anonymous, and your views and experiences are very important to us. It's really interesting for us to hear what you have to say, and we hope you enjoy this experience.</p> <p>To thank you for your time and participation, everyone who contributes fully to all the forum questions and tasks will be rewarded with \$30.</p> <p>There is also a prize of \$200 worth of vouchers (petrol, grocery), which will be won by the best contributor.</p> <p>Ready? So let's start!</p>	<p>Welcome and re-familiarise contributors with research topic and provide clear instructions on what is required to achieve incentives offered.</p>

Day 1		Objective
Q1 title	The different formula and toddler milks	To understand if and how caregivers differentiate between infant formula, follow-up formula and toddler milks (objective 3)
teaser	Let's start this forum with thinking about all the different stages and brands of formula and toddler milks that are available...	
question	<p>What are all the formulas and milks suitable for babies and toddlers (just the ones that come to mind is fine)?</p> <ul style="list-style-type: none"> Why would we use one over another? 	
Q2 title	What is your child drinking?	To identify what products caregivers are using and how they using them (objective 2)
teaser	What formula and/or toddler milks does your child drink?	
question	<p>Thinking about your youngest child aged six months to three years old, what formula or toddler milks do they drink at the moment?</p> <p><i>We'd love you to upload a photo of the package or tin. If you're unable to do that, then please copy the brand, name and stage direct from the package or tin.</i></p> <p>Then, please tell us a bit about:</p> <ul style="list-style-type: none"> When does this child tend to drink this? How often does this child drink this? How much does your child drink each time? Do you use this in preparing other foods (e.g. porridge, macaroni cheese, etc)? 	
Q3 title	Purpose of formula or toddler milks	To identify what products caregivers are using and how they using them (objective 2)
teaser	What is the purpose of feeding your child formula or toddler milks?	
question	<p>Continuing to think about your youngest child aged six months to three years, we're interested in hearing if your child drinks formula or toddler milk as a replacement for something else (for example, other milk or food).</p> <ul style="list-style-type: none"> Does your child drink it instead of other milk (such as cow's milk, breast milk, etc)? How come? Does your child drink it as well as usual meals? Or does the formula/toddler milk tend to make up for meals? How come? 	

Day 2		Objective
Q1 title	Starting out	To understand when and why caregivers are introducing these products to their children's diets (objective 1)
teaser	Today, we'd love to hear about when your child first started to use formula or toddler milk...	
question	<p>When did your youngest child who is now six months to three years old first start drinking formula or toddler milk? How old were they?</p> <ul style="list-style-type: none"> What was the reason you first started giving this child formula or toddler milks? Please describe in as much detail what was happening in yours and your child's life at the time. What were they drinking before the formula or toddler milks? 	
Q2 title	Information and advice about what to use	To understand the advice and information caregivers are accessing to their decisions about starting to use these products (objective 4)
teaser	There are many choices out there. What helped your decisions about what to buy for your child...?	
question	<p>Continuing to think about your youngest child aged between six months and three years old, when you first started giving your child formula or toddler milk, how did you decide what to buy?</p> <ul style="list-style-type: none"> Where did you look for or get information? What was the most helpful source of information or advice? What made you decide on the particular brand and stage of formula or toddler milk that you did? Did you decide what you were going to buy before you got to the shop or while you were there? How come? 	
Q3 title	Over time	To explore caregivers' purchasing behaviour (objective 5)
teaser	What's happened since the first time...?	
question	<p>Today, how do you decide what brand and stage to buy? Please tell us the reasons you buy this one.</p> <ul style="list-style-type: none"> Do you always tend to choose the same brand? How come? What do you do if the one you normally buy is not there? 	

Day 3		Objective
Q1 title	Usefulness of the label	This question is to lead us into to understanding how caregivers use labelling information (objectiv 6)
teaser	How useful are the different parts of the label when you're shopping?	
question	<p>Today we are going to focus our discussion on the labelling of the tins or packages of follow-on formula or toddler milks. We are interested in what part of the label is helpful when selecting which milk to buy.</p> <p>SORTING TOOL</p> <p>Here are some images of different parts of the label of a tin of formula.</p>  <p>Selecting each image, drag it into the buckets below to indicate how useful each part of the label is to you when you are making the decision to purchase one of these milk products.</p> <p>[Five buckets from 'not at all useful' to 'very useful']</p> <p>Note there will be a link to full size images for people to refer to if required</p> <p>Once you have done that, please tell us about why you have put each image into the bucket that you have (that is, why is each part of the label useful or not so useful?).</p>	
Q2 title	Using the label information	
teaser	How do you use the information on the label once you get it home?	
question	<p>Here are the same images again. [Insert same images as above]</p> <ul style="list-style-type: none"> How do you use each of these parts of the label? What information in particular is most important to you once you get home. What do you use each for? What other information on the label would you like to have? What else would be useful? How come? 	To explore how caregivers use labelling information (objective x)

Q3 title	Feeding guides	To understand if caregivers follow the feeding guides (objective 6)																							
teaser	Let's focus on the feeding guides																								
question	<div><table border="1"><thead><tr><th rowspan="2">Age of child</th><th colspan="2">Quantity per Day</th><th colspan="2">No. of feedings per day</th></tr><tr><th>Preparation (oz)</th><th>Amount (oz)</th><th>Formula</th><th>Breast</th></tr></thead><tbody><tr><td>0-6 months</td><td>2-4</td><td>4-8</td><td>4-8</td><td>4-8</td></tr><tr><td>6-12 months</td><td>2-4</td><td>4-8</td><td>4-8</td><td>4-8</td></tr><tr><td>12-24 months</td><td>2-4</td><td>4-8</td><td>4-8</td><td>4-8</td></tr></tbody></table><p>Always use the feeding guide to determine how much to feed your child. The feeding guide provides information on how much to feed your child and how often by the child's age. The feeding guide is a helpful tool to use when you are first making up formula, but now I know how much to feed my child. I don't refer to the feeding guide as I don't feel it's suitable for my child. Something else (please tell us more below in the comment box)</p><p>In the comment box below, please tell us a little bit about why you do what you do.</p></div>		Age of child	Quantity per Day		No. of feedings per day		Preparation (oz)	Amount (oz)	Formula	Breast	0-6 months	2-4	4-8	4-8	4-8	6-12 months	2-4	4-8	4-8	4-8	12-24 months	2-4	4-8	4-8
Age of child	Quantity per Day			No. of feedings per day																					
	Preparation (oz)	Amount (oz)	Formula	Breast																					
0-6 months	2-4	4-8	4-8	4-8																					
6-12 months	2-4	4-8	4-8	4-8																					
12-24 months	2-4	4-8	4-8	4-8																					
Q4 title	Preparation guides	To understand if caregivers follow the preparation guides (objective 6)																							
teaser	Let's focus on the preparation guides																								
question	<div><p>Preparation Instructions</p><p>POLLING TOOL</p><p>You may have noticed the preparation guides provided on the tin or package. The preparation guide tells you how to make up the formula or toddler milk.</p><p>Thinking about how you use the preparation guides, please select the statement below that best fits with what you do.</p><p>I always refer to the preparation guide and follow the instructions when preparing the formula.</p><p>I used to refer to the preparation guide when I was first making up formula, but now I don't bother because I know what to do.</p><p>I don't refer to the preparation guide as I don't feel it's that important.</p><p>Something else (please tell us more below in the comment box)</p><p>In the comment box below, please tell us a little bit about why you do what you do.</p></div>																								

Appendix III (b) – Non-users topic guide

DISCUSSION GUIDE

Project	Follow-up formula - non users (V4) June 24 version 109104902		
Commencing	9 July 2013		
Duration	1 day, 2 questions at this stage (one filtered, one all).		
Moderator[s]	Venise Comfort and Céline Yockney		
Tools	<input type="checkbox"/> Mapping (10)	<input type="checkbox"/> Sorting (12)	<input type="checkbox"/> Drag n' Drop (10)

Forum Introduction	Objective
<p>Welcome to this forum and thank you for taking part. We're going to talk about your 6 month to three year old child or children, and what types of food and drink they consume. We're interested in your thoughts on what's important to you when you think about what to feed your child or children, and what kinds of things you take into account.</p> <p>Everyone in this forum is a caregiver or parent that does not currently feed their child formula or toddler milk, so you will all have this in common. The aim of the forum is to understand parents and caregivers views and decision-making, we are not aiming to sell you anything, or convince anyone of other views – everyone's opinions are valued.</p> <p>This forum is going to run for today only Tuesday 9 July, so we have posted all the questions you will need to answer today. We will keep the forum open for a couple more days after today, so don't worry if you can't get to it right away. We will send you a reminder if you haven't finished everything by Thursday 11 July.</p> <p>We are interested in what you think of others' views and experiences, as well as your own, so after today, even if you have completed all the questions, it would be great if you came back in tomorrow to see what others have said, and to add anything that might have occurred to you overnight.</p> <p>The forum is informal, you will be completely anonymous, and your views and experiences are very important to us. It's really interesting for us to hear what you have to say, and we hope you enjoy this experience.</p> <p>Thank you for your time and participation, everyone who contributes fully to all the forum questions and tasks will be rewarded with \$10.</p> <p>Ready? So let's start!</p>	<p>Welcome and re-familiarise contributors with research topic and provide clear instructions on what is required to achieve incentives offered.</p>

DAY 1		Objective
Q1 title	Your decision and the reasons for not using	To identify how parents and caregivers make this decision, and what drives it as well as identify any reasons for lapsing/discontinuing
teaser	Deciding what to provide your child to drink...	
question	<p>NEVER USED From our earlier questions when we invited you into this forum, you indicated that you have never used infant formula, follow on formulas or toddler milks.</p> <p>We are really interested in the decision that parents and caregivers make when they decide what to give their children to drink. Can you tell us:</p> <ul style="list-style-type: none"> • Have you ever considered using infant formula, follow on formula or toddler milks? If so, which one? • What did you weigh up when thinking about what to give your child or children? (i.e. what was important to you?) • What information sources did you use or who did you talk to about this decision? What influenced your decision? • What were your concerns about this decision? • What do you tend to give your child to drink currently? • Has this changed as your child has got older in any way? <p>LAPSED USERS From our earlier questions, you indicated that you have used infant formula, follow-on formula, or toddler milks in the past, but no longer do so.</p> <p>We are really interested in the decision that parents and caregivers make when they decide what to give their children to drink. Can you tell us:</p> <ul style="list-style-type: none"> • Why do you no longer give these types of drinks to your child and what did you switch to using? Or why you might have used it for an older child in the past, but not your youngest child now? • What factors did you weigh up when thinking about stopping using these drinks? • Did you discuss the pros and cons with anyone else? • What were your concerns about this decision? • What do you tend to give your child to drink currently? • Has this changed as your child has got older in any way? 	

DAY 1		Objective
Q2 title	Your perceptions	To identify what parents and caregivers perceive about FUF. Note – not about others that use it, about the product itself.
teaser	What you think about formula drinks...	
question	<p>While you are currently not giving your child or children any follow on formula or toddler milks, we are interested in your thoughts about these types of drinks:</p> <ul style="list-style-type: none"> • Do you know of any benefits of these drinks (even if this is for other parents and caregivers, not for you or your child)? • Do you know of any weaknesses of these drinks (even if this is for other parents and caregivers, not for you and your child). • What do you think is important when deciding to use these products? What questions might you have? 	

Appendix IV – Full breakdown of caregivers

Users of formula (New Zealand) n=52

AGE OF PARENT/CAREGIVER	
25-29 years old	7
30-34 years old	24
35-39 years old	12
40-44 years old	8
50-54 years old	1
Total	52

ETHNICITY	
New Zealand European/Pakeha	34
New Zealander of Maori descent	1
New Zealander of Pasifika descent	1
New Zealander of other descent	4
Other European	5
Indian/Pakistani/Sri Lankan	4
Chinese	1
Korean	1
Other Asian	1
Total	52

GENDER	
Male	7
Female	45
Total	52

HOUSEHOLD INCOME (NZD)	
\$20,000-\$29,999	5
\$30,000-\$39,999	5
\$40,000-\$49,999	4
\$50,000-\$59,999	7
\$60,000-\$79,999	9
\$80,000-\$99,999	8
\$100,000-\$119,999	4
\$120,000-\$139,999	2
\$140,000 and over	6
Refuse to say	2
Total	52

LOCATION	
Whangarei	1
Auckland	21
Hamilton	7
Tauranga	2
New Plymouth	1
Wanganui	1
Wellington	4
Palmerston North	2
Napier-Hastings	2
Christchurch	5
Dunedin	2
Other – Upper North Island	2
Other – Lower North Island	2
Total	52

EMPLOYMENT SITUATION	
Full-time employment	9
Part-time employment	18
Full-time caregivers to the child/ren	24
Other	1
Total	52

RELATIONSHIP TO CHILD/REN	
Mother (biological, adoptive/whangai, foster)	44
Father (biological, adoptive/whangai, foster)	6
Other relative	2
Total	52

AGE OF CHILDREN		
Child 1	6 to 12 months old	20
	12 to 24 months old	28
	24 to 36 months old	4
Total		52
Child 2	12 to 24 months old	2
	24 to 36 months old	15
Total		17

ARRANGEMENTS FOR CHILDREN		
Child 1	Looking after child by themselves	10
	Looking after child with partner	32
	Childcare services	9
	Part-time/full-time nanny at home	1
Total		52
Child 2	Looking after child by themselves	1
	Looking after child with partner	12
	Childcare services	2
	Part-time/full-time nanny at home	2
Total		17

FEEDING OPTIONS FOR 'CHILD 1'	
Parents/caregivers use the following types of food with 'Child 1' (out of 52 children)	
Breast milk	15
Infant formula	21
Toddler's formula	13
Follow-up formula	24
Milk	18
Pre-prepared	37

Users of formula (Australia) n=33

AGE OF PARENT/CAREGIVER	
25-29 years old	9
30-34 years old	10
35-39 years old	12
40-44 years old	1
50-54 years old	1
Total	33

ETHNICITY	
Australian	19
North West European	2
South East European	2
North East Asian (e.g. Chinese)	3
South East Asian (e.g. Vietnamese, Filipino, Indonesian)	2
Southern and Central Asian (e.g. Indian)	3
Other Oceanian	1
Other	1
Total	33

GENDER	
Male	5
Female	28
Total	33

HOUSEHOLD INCOME (AUD)	
\$21,000-\$40,999	4
\$41,000-\$60,999	2
\$61,000-\$80,999	5
\$81,000-\$99,999	10
\$100,000 and over	10
Refuse to say	2
Total	33

LOCATION	
Sydney (city/suburbs)	8
New South Wales	3
Melbourne (city/suburbs)	7
Victoria	1
Brisbane (city/suburbs)	4
Queensland	2
Perth (city/suburbs)	3
Adelaide (city/suburbs)	4
Tasmania	1
Total	33

EMPLOYMENT SITUATION	
Full-time employment	7
Part-time employment	8
Full-time caregivers to the child/ren	17
Other	1
Total	33

RELATIONSHIP TO CHILD/REN	
Mother (biological, adoptive/whangai, foster)	28
Father (biological, adoptive/whangai, foster)	4
Other relative	1
Total	33

AGE OF CHILDREN		
Child 1	6 to 12 months old	9
	12 to 24 months old	16
	24 to 36 months old	8
Total		33
Child 2	12 to 24 months old	2
	24 to 36 months old	2
Total		4
Child 3	24 to 36 months old	1
Total		1

ARRANGEMENTS FOR CHILDREN		
Child 1	Looking after child by themselves	12
	Looking after child with partner	15
	Childcare services	6
Total		33
Child 2	Looking after child by themselves	1
	Childcare services	3
Total		4
Child 3	Looking after child by themselves	1
Total		1

FEEDING OPTIONS FOR 'CHILD 1'	
Parents/caregivers use the following types of food with 'Child 1' (out of 33 children)	
Breast milk	6
Infant formula	16
Toddler's formula	14
Follow-up formula	9
Milk	22
Pre-prepared food	20

Non-users of formula (New Zealand and Australia) n=52

AGE OF PARENT/CAREGIVER	
25-29 years old	11
30-34 years old	21
35-39 years old	15
40-44 years old	4
50-54 years old	1
Total	52

ETHNICITY	
New Zealand European/Pakeha	23
New Zealander of Maori descent	2
Other European	4
Chinese	1
Other Asian	1
Other	2
Total (New Zealand)	33
Australian	11
North West European	2
North East Asian (e.g. Chinese)	1
Southern and Central Asian (e.g. Indian)	3
Other Oceanian	1
North African and Middle Eastern	1
Total (Australia)	19

GENDER	
Male	6
Female	46
Total	52

HOUSEHOLD INCOME	
NZD \$20,000-\$29,999	1
NZD \$30,000-\$39,999	2
NZD \$40,000-\$49,999	3
NZD \$50,000-\$59,999	6
NZD \$60,000-\$79,999	9
NZD \$80,000-\$99,999	7
NZD \$100,000-\$119,999	4
Refuse to say	1
Total (New Zealand)	33
AUD \$21,000-\$40,999	2
AUD \$41,000-\$60,999	3
AUD \$61,000-\$80,999	5
AUD \$81,000-\$99,999	2
AUD \$100,000 and over	3
Refuse to say	4
Total (Australia)	19

LOCATION	
Whangarei	1
Auckland	8
Hamilton	3
Tauranga	1
Wellington	3
Napier-Hastings	4
Nelson	1
Christchurch	2
Dunedin	2
Invercargill	2
Other – Upper North Island	2
Other – Lower North Island	1
Other – South Island	3
Total (New Zealand)	33
Sydney (city/suburbs)	3
New South Wales	1
Melbourne (city/suburbs)	4
Victoria	4
Brisbane (city/suburbs)	2
Queensland	2
Perth (city/suburbs)	1
Adelaide (city/suburbs)	1
Tasmania	1
Total (Australia)	19

EMPLOYMENT SITUATION	
Full-time employment	11
Part-time employment	9
Full-time caregivers to the child/ren	31
Other	1
Total	52

RELATIONSHIP TO CHILD/REN	
Mother (biological, adoptive/whangai, foster)	46
Father (biological, adoptive/whangai, foster)	6
Total	52

AGE OF CHILDREN		
Child 1	6 to 12 months old	13
	12 to 24 months old	24
	24 to 36 months old	15
Total		52
Child 2	12 to 24 months old	1
	24 to 36 months old	4
Total		5

ARRANGEMENTS FOR CHILDREN		
Child 1	Looking after child by themselves	13
	Looking after child with partner	36
	Childcare services	3
Total		52
Child 2	Looking after child with partner	3
	Childcare services	2
Total		5

FORMULA FEEDING	
(out of 52 'Child 1')	
Never (never fed their child formula)	13
Lapsed – current (fed formula to their current child)	19
Lapsed – other (fed formula to an older child, in the past)	7
Lapsed – both (fed formula to their older and current child)	13
Total	52