# Quantification of purchasing of formula, commercial baby meals, finger foods and drinks (using Kantar data)

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This report describes purchases of commercial formula, baby meals, finger foods and drinks as reported in the Kantar data over the period October 2016 to February 2020. We describe the quantities and prices of products and brands purchased, how they vary across households with different characteristics and how purchases of some products relate to purchases of other products.

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# 1 Executive Summary

**Who purchases?**

- Around 60% of households with a child 0-6 months report purchasing formula (Table 4.1), purchasing on average 300ml per day (Table 4.3).
- Around 17% of formula is purchased by households that do not include a child under 36 months (Table 2.2).
- Almost half of households (45%) that purchase baby meals, baby finger food (jointly referred to as 'baby food') or baby drinks do not include a child under 36 months; they account for around 30% of baby food/drinks purchases (around 26% of purchases of baby meals, 38% of finger foods and 46% of baby drinks (Table 2.2)).
- Low SES households are more likely to purchase formula and purchase larger quantities than high SES households; while bing less likely to purchase baby food or drinks, they also purchase larger quantities of baby food or drinks.
- Households where the main shopper is obese are more likely to purchase, and purchase larger quantities of formula and larger quantities of baby food or drinks compared to households where the main shopper is of normal or under weight.
- Households where the main shopper's ethnicity is Asian or Black are less likely to purchase, and purchase lower quantities of formula compared to White or Other. The same pattern holds for the purchase of baby food or drinks.

**When and how much?**

- Households are most likely to purchase formula when they have a 10 months old child; 46% buy formula at this time.
- Few households purchase formula quantities that would meet 90% or more of producer-recommended levels.
- Households that purchase formula are more likely to also buy baby food or drinks – at the same time and subsequently.

**What?**

- Danone is the market leader by a substantive margin for formula and for baby meals (the largest category of baby food, baby finger food and baby drinks).

# 2 Overview of data

This report describes purchases of formula and commercial baby foods, finger foods and drinks as reported in data provided by Kantar. Kantar is a market research firm. The data include information on the purchases of food and drinks for home consumption made by a sample of households in the UK. The data are collected from participants who scan purchases when they are brought into the house. The data record the products that were purchased at the barcode level, the price, and other product characteristics. It also includes information on household demographics, such as the gender and age of all household members, socio-economic status, ethnicity, and additional characteristics of the main shopper.

We use data on purchases made between October 2016 and February 2020. We distinguish purchases of formula and commercial baby foods, finger foods and drinks as classified by Public Health England (PHE). We distinguish households that:

- have a child aged up to 36 months at the time of buying formula, baby food or drinks, and within this group where the child is:
  - 0-6 months, which includes from 6 months before to 6 months after birth
  - 7-12 months
  - 13-24 months and 25-36 months.

  Appendix A.2 discusses why we distinguish these age groups.
- do not have a child aged up to 36 months at the time of buying formula, baby food or drinks;
- have a child aged up to 36 months but are never observed purchasing formula, baby food or drinks.

Appendix A.1 discusses how we identify children in the data. In the main part of this report we exclude households that have two or more children under 36 months simply because they complicate the comparison. This group constitutes 11% of the sample and displays very similar characteristics to households with just one child aged under 36 months. Appendix A.3 shows a comparison of demographic characteristics of households with one child aged 0-36 months with households with more than one child in this age bracket.

Table 2.1 shows the number of households of each type and provides information on household composition.

- 44% of households that purchase formula, baby food or drinks (6,113 households) do not have a child aged 0-36 months in their household. See Table 2.2 for a breakdown of their expenditure shares on each product category - formula, baby meals, baby food, and baby drinks. Our interpretation is that these are primarily households that care for children from other households (e.g. grandparents, childminders).[1] Indeed, in 42% of households purchasing and without a 0-36 months, the youngest adult female is 51+ years, the average age of onset of menopause in the UK, compared to less than 2% in households with a 0-36 months old (Table 2.2). Similarly, 25% of households purchasing and without a 0-36 months old report to be pensioner households, compared to less than 1% of those with a 0-36 months old (Table C.1).

- 7,548 households have a child aged 0-36 months at some point between October 2016 and February 2020 and typically have at least one adult female (between the age of 18 and 51 years).

- 4,615 of households with a child aged 0-36 months are observed purchasing and 2,933 are not observed to ever purchase formula, baby food or drinks.

Table 2.1: *Household composition*

| Household type | Number of households | Age of youngest adult female | Percentage of households with 1 adult | 2 adults | 3+ adults |
|---|---|---|---|---|---|
| Includes child under 36 months and buys formula, baby food and drinks | 4,615 | 18-51 years | 4.4 | 84.7 | 9.5 |
| | | Over 51 years | 0.0 | 0.7 | 0.2 |
| | | None | 0.1 | 0.4 | 0.0 |
| Includes child under 36 months and does not buy formula, baby food and drinks | 2,933 | 18-51 years | 4.7 | 70.8 | 23.1 |
| | | Over 51 years | 0.1 | 0.2 | 0.4 |
| | | None | 0.3 | 0.2 | 0.2 |
| Does not include child under 36 months but does buy formula, baby food and drinks | 6,113 | 18-51 years | 5.5 | 38.4 | 14.6 |
| | | Over 51 years | 6.2 | 27.7 | 2.9 |
| | | None | 3.1 | 1.5 | 0.0 |
| *All* | *13,661* | | | | |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with a child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and/or purchasing formula, baby food or drinks at some point during this period. For details see Appendix A. 'Adult' is defined as 18+ years.*

Information on other household demographics are provided in Appendix Table C.1.

Table 2.2 describes how much households buy. In Section 4 we describe purchases by households with a child 0-36 months separately from purchases by households without a child. The large majority (76%) of total expenditure is made by households with a child aged 0-36 months. We discuss their purchases in section 4.1. Remaining purchases (24%) are made by households that have only older children, or no children. We discuss their purchases in Section 4.2.

[1]Some of these households might be purchasing for own consumption. It has been observed that baby meals for example are used by some elderly given small portions and ease of swallowing.

Table 2.2: *Expenditure shares*

| | Share of expenditure | | | | |
|---|---|---|---|---|---|
| | Total | Formula | Baby meals | Baby finger food | Drinks |
| Includes child 36 months or younger | 75.6 | 83.5 | 74.3 | 61.7 | 54.0 |
| Does not include child 36 months or younger | 24.4 | 16.5 | 25.7 | 38.3 | 46.0 |
| *All* | *100* | *100* | *100* | *100* | *100* |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food or drinks at some point during this period. For details see Appendix A.*

The data record purchases made by households over time. On average households are in the data for around 7 years. In Appendix A.4 we discuss the potential implications for our analysis of households under-reporting purchases, entering and exiting the panel at different points in time, and remaining for varying lengths of time. Our analysis is not affected by these restrictions, therefore we do not apply them in the main part of this report.

# 3 What is purchased?

In this section we describe the formula, baby food and drink products that are purchased between October 2016 and February 2020. We separate products into formula (Section 3.1) and commercial baby food, finger food and drinks (Section 3.2).

## 3.1 Formula

Formula is classified into five types: infant formula, hungry formula, follow on formula, growing up formula and specialist formula.

Infant formula and hungry formula are suitable to all children as their main drink until they are one year old (hungry formula is similar to infant formulas but contain more casein, making them harder to digest). Follow on formula is suitable from 6 months and growing up formula from one year, although children can be given cow's milk from that age instead of formula as per National Health Service (NHS) guidelines. Specialist formula varies in its suitability and is targeted at specific subsets of infants (e.g. premature babies, lactose-intolerant babies and those experiencing acid reflux etc.).

Table 3.1 summarises expenditure shares and prices by formula type. The second column shows the typical recommended age suitability for each formula type. The largest share of expenditures is on infant formula, accounting 46%. Follow on formula makes up 25% of the total formula expenditure, followed by growing up formula at 18%. Specialist formula makes up 6% of total expenditure, and hungry formula 5%.

The final two columns report the average price paid per kg of formula and per litre of product. Each formula type (although not each formula product) can be purchased in dry powder form, to be made up with water, and in ready-to-feed liquid form (except for specialist formula, which was only purchased ready-to-feed.). The average price paid per kilo of infant formula is £11.1, which can prepare about 6.5 litre of formula, implying a cost of £1.70 per litre[2], which compares to an

[2]We make these calculations based on recommendations to mix one scoop of formula with 30ml of water, where one scoop contains about 4.6 grams. See for example:

average of £4.5 paid for a litre of ready-to-feed formula. In total, 84% of expenditures on formula is spent on the powdered version.

Table 3.1: *Expenditure shares and price of formula*

| | | | Average price (£) | |
|---|---|---|---|---|
| Formula type | Suitable from | Expenditure share (%) | Per kg of powder | Per litre of ready to drink |
| Infant formula | 0 months | 46.3 | 11.1 | 4.5 |
| Hungry formula | 0 months | 4.6 | 10.9 | 6.9 |
| Follow on formula | 6 months | 24.6 | 10.8 | 3.8 |
| Growing up formula | 12 months | 18.3 | 10.5 | 2.1 |
| Specialist | Product dependent | 6.2 | 14.0 | |

*Notes: Kantar data October 2016 - February 2020. Expenditure is the sum of expenditure in a month and prices are calculated based on all products purchased in this period. Specialist formula was not purchased in ready-to-drink format. 'Suitable from' indicates the age suitability as recommended by producers.*

Table 3.2 reports expenditure and price by the producer of formula products. Across all formula types, Danone is the market leader by a substantive margin, accounting for between 61% (growing up formula) to 76% (hungry formula) of all purchases. SMA Nutrition has the second highest market share for all formula types (with market shares of between 15% and 20%).

https://www.nutricialearningcenter.com/globalassets/pdfs/gi-allergy/neocate-infant-dha_ara-2019-dilution-chart.pdf.

Table 3.2: *Producer of formula products*

| Formula type | Parent company | Expenditure share (%) | Average price (£) Per kg of powder | Average price (£) Per litre of ready to drink |
|---|---|---|---|---|
| Infant formula | Danone Nutricia ELN | 71.3 | 11.4 | 4.6 |
| | SMA Nutrition | 16.1 | 11.6 | 4.4 |
| | Aldi Stores Ltd | 6.2 | 7.7 | |
| | Hipp Nutrition | 4.5 | 10.9 | 3.8 |
| | Bebivita | 0.8 | 9.0 | |
| | J Sainsbury PLC | 0.6 | 7.8 | |
| | Kendal Healthcare Ltd | 0.6 | 10.5 | |
| | *Total* | 100 | 11.1 | 4.5 |
| Follow on formula | Danone Nutricia ELN | 67.3 | 11.0 | 3.8 |
| | SMA Nutrition | 14.6 | 11.6 | 3.6 |
| | Aldi Stores Ltd | 5.9 | 7.7 | |
| | Hipp Nutrition | 4.7 | 11.5 | 3.7 |
| | Vitacare Ltd | 3.9 | 23.3 | |
| | Abbott Laboratories Ltd | 0.9 | 14.7 | |
| | J Sainsbury PLC | 0.8 | 7.7 | |
| | Bebivita | 0.8 | 10.3 | |
| | Kendal Healthcare Ltd | 0.7 | 10.3 | |
| | Materna Industries Ltd | 0.3 | 14.3 | |
| | *Total* | 100 | 10.8 | 3.8 |
| Growing up formula | Danone Nutricia ELN | 60.8 | 10.7 | 3.2 |
| | SMA Nutrition | 14.7 | 11.0 | 3.1 |
| | Alpro | 14.5 | | 1.4 |
| | Nestle S.A. | 3.6 | 8.1 | |
| | Hipp Nutrition | 2.3 | 10.2 | 3.4 |
| | Abbott Laboratories Ltd | 1.5 | 15.1 | |
| | Kendal Healthcare Ltd | 1.1 | 9.8 | |
| | Vitacare Ltd | 1.0 | 25.5 | |
| | Bebivita | 0.6 | | 6.0 |
| | *Total* | 100 | 10.5 | 2.1 |
| Hungry formula | Danone Nutricia ELN | 75.8 | 10.9 | 3.9 |
| | SMA Nutrition | 18.6 | | 10.4 |
| | Hipp Nutrition | 5.6 | 11.1 | 3.8 |
| | *Total* | 100 | 10.9 | 6.9 |
| Specialist | Danone Nutricia ELN | 62.7 | 14.0 | |
| | SMA Nutrition | 20.2 | 13.9 | |
| | Mead Johnson BV | 7.7 | 37.1 | |
| | Hipp Nutrition | 4.0 | 13.8 | |
| | Materna Industries Ltd | 3.7 | 18.6 | |
| | Vitacare Ltd | 1.7 | 21.1 | |
| | *Total* | 100 | 14.0 | |

*Notes: Kantar data October 2016 - February 2020. Expenditures and prices calculated based on all products purchased in this period. Specialist formula was not purchased in ready-to-drink format. Parent companies are defined using Kantar definitions.*

Details on the brands, expenditures and prices are shown in Appendix B.1. Cow & Gate, Aptamil and SMA together account for around 75% of the total expenditure on each infant formula type. Aptamil is the market leader in infant formula, while Cow & Gate is the market leader for follow on and growing up formula .

## 3.2 Baby meals, finger foods and drinks

PHE classifies products aimed at young children, other than formula, into baby meals, finger food and drinks (henceforth we combine baby meals and baby finger food into 'baby food' unless otherwise specified). The classifications, their sub-categories and some additional details are provided in Figure 3.1 as published in the 2019 PHE Report on 'Foods and drinks aimed at infants and young children: evidence and opportunities for action'. We follow this classification in our analysis.[3]

Figure 3.1: *PHE categorization for baby food and drink products*

| Product type | Product category | Product sub-category | Detail | |
|---|---|---|---|---|
| | Fruit and vegetable first foods | Single vegetables | 100% (or nearly) fruit and/or vegetables, usually purees<br>Includes products with functional ingredients (i.e. ascorbic acid, water)<br>Excludes products with legumes, beans, starchy ingredients or oils (e.g. cooking sauces and soups) | |
| | | Single fruit | | |
| | | Mixed fruit (>1) | | |
| | | Mixed vegetables (>1) | | |
| | | Mixed fruit and vegetables | | |
| | Dry cereals/foods | Savoury | Product name suggests savoury (eg vegetable flavour) | Excludes plain starchy foods (eg baby rice/plain pasta/couscous/oats<br>Excludes ready to eat products |
| | | Sweet | Product name suggests sweet (eg fruit flavour) | |
| | Desserts and breakfasts | | Combinations of fruit/dairy/starchy foods<br>Includes ambient yoghurts, desserts, breakfasts (not dry, eg porridge/muesli made up) including plain flavours<br>Includes fruit purees with added cereals/grains/rice and or water/milk<br>Includes products made with dairy alternatives<br>Excludes chilled yoghurts (these are included in the sugar reduction programme) | |
| | Soups & cooking sauces | | Excludes oils and seasonings | |
| | Other | | Includes plain pasta/rice/couscous and stocks | |
| Baby finger foods | Savoury finger foods | | Includes products based on starchy foods and/or pulses<br>Product name suggests savoury/plain, not sweet (eg vegetable flavour)<br>Includes puffs, breadsticks, savoury rice cakes, biscuits, wafers and grain-based crisps | |
| | Fruit and vegetable based finger foods | Vegetable based crisps/waffles | Includes products with more than 25% fruit or vegetable ingredients<br>Includes fruit/vegetable based products with added cereal/oats (eg fruit bakes/bites, fruit shapes)<br>Includes plain/coated/flavoured dried fruit/vegetables | |
| | | Fruit crisps | | |
| | | Fruit based bars with cereal/oats | | |
| | | Other fruit-based snacks | | |
| | Sweet finger foods | Biscuits/biscotti/wafers (includes minis) | Product name suggests sweet, not savoury (eg fruit flavour)<br>Includes fruit flavoured products | |
| | | Rice cakes | | |
| | | Puffs | Includes products with up to 25% fruit or vegetable ingredients | |
| | | Cereal/oat bars | | |
| Baby drinks | Drinks | | Excludes formula milks and plain water | |

*Source: PHE (June 2019). "Foods and drinks aimed at infants and young children: evidence and opportunities for action".*

[3]The classification was done in 2019 (report published in June 2019). 3% of expenditure on baby food and drinks over the period we analyse is on items that were not available at the time the classification was done. For these products we do the classification ourselves, following PHE's approach.

Table 3.3 shows expenditure shares on formula and PHE classified baby food and drinks products. The majority of expenditures within baby food and drinks are baby meals (65%), and the two largest contributors within this category are main meals (50%) and fruit and vegetable first foods (26%). About one third (34%) of expenditures on baby food or drinks is accounted for by baby finger foods and 1% by baby drinks.

Table 3.3: *Monthly expenditure share on commercial baby food or drink products*

| Product category | Product sub-category | Expenditure share (%) |
|---|---|---|
| Formula | Infant formula | 46.2 |
| | Follow on formula | 24.6 |
| | Growing up formula | 18.2 |
| | Hungry formula | 4.5 |
| | Specialist | 6.2 |
| | *Total* | *100.0* |
| Baby meals | Main meals | 49.7 |
| | Fruit and vegetable first foods | 25.8 |
| | Dry cereal/foods | 11.0 |
| | Desserts and breakfasts | 12.6 |
| | Soup and cooking sauces | 0.1 |
| | Other | 0.6 |
| | *Total* | *100.0* |
| Baby finger foods | Savoury finger foods | 26.2 |
| | Sweet finger foods | 37.9 |
| | Fruit and vegetable based finger foods | 35.7 |
| | *Total* | *100.0* |
| Baby drinks | Baby drinks | 100 |
| | *Total* | *100.0* |

*Notes: Kantar data October 2016 - February 2020. Expenditures and shares calculated based on all products purchased in this period. Product categories and sub-categories defined to match Public Health England's classification. Where products within the period of our analysis were included in PHE's 2019 analysis (relevant for 95% of total purchases), the classification is precise (as they have shared their classification); where new products have been introduced (5% of total purchases), we have followed their classification approach, as outlined in table 3.1.*

Details on baby food and drinks producers are shown in Appendix B.2. The highest share of expenditures among baby meals, almost one fourth (24%), is on Danone products; for baby finger foods the highest share (a bit more than one third, 35%) is Organix Brands Plc and the highest expenditure share on non-formula baby drinks is with almost two thirds (64%) on H.J. Heinz Company.

# 4 Who purchases and how much?

In this section we describe which households buy formula or commercial baby food or drinks, and how much they buy. As we saw in Table 2.2, the large majority (76%) of total expenditure is made by households with a child aged 0-36 months. We discuss their purchases in section 4.1. Remaining purchases (24%) are made by households that have only older children, or no children. We discuss their purchases in Section 4.2.

## 4.1 Purchases by households with a child aged 0-36 months

Table 4.1 describes the share of households that buy formula but not baby food or drinks, buy both, do not buy formula but do buy baby food or drinks, and those that never buy either. The columns show the percentage of households with a child in the relevant age bracket.

Four in ten households (40%) with a 0-36 months old child report buying formula at some point the child falls within this age range. Most of these (33%) also buy baby food or drinks at some point when the child falls in this age bracket, 7% buy formula but never buy baby food or drinks. A higher share of households with a child aged 0-6 months buy formula (59%), which increases to 65% for households with a 7-12 months-old.

The other six in ten households never report buying formula (60%); this is lower for households with children 0-6 months (41%). 25% of households with a child aged 0-36 months never report buying either formula, baby food or drinks; for households with children aged7-12 months this is lower at 8%. Around one-third (33%) of households with a child aged 0-36 never buy formula but do buy baby food or drinks at some point in time when the child is in that age bracket.

We discuss purchases of formula in section 4.1.1 and of baby food and drinks in section 4.1.2. We discuss how purchases relate to each other contemporaneously in Section 4.1.3 and how they relate sequentially in Section 5.

Table 4.1: *Percentage of households that purchase formula, baby food or drinks*

| | Age of child in months | | | | |
|---|---|---|---|---|---|
| | 0-36 | 0-6 | 7-12 | 13-24 | 25-36 |
| **Buy formula** | **40.0** | **59.0** | **64.5** | **34.0** | **12.5** |
| and baby food/drinks | 32.9 | 36.1 | 62.0 | 31.1 | 8.6 |
| and never buy baby food/drinks | 7.1 | 22.9 | 2.5 | 2.9 | 3.9 |
| **Never buy formula** | **60.0** | **41.0** | **35.5** | **66.0** | **87.5** |
| but does buy baby food/drinks | 34.9 | 14.2 | 27.1 | 47.1 | 43.4 |
| or baby food/drinks | 25.1 | 26.8 | 8.4 | 18.9 | 44.1 |
| *All* | *100* | *100* | *100* | *100* | *100* |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. Households can be present in more than one column.*

### 4.1.1 Amount purchased - formula

Table 4.2 shows the share of expenditure on each type of formula. We separate out households with a pregnant woman. Households with a child aged 7-12 months account for the largest share of expenditure in the Kantar data (44%), followed by those with a child aged 0-6 months (30%). In terms of different formula types, the largest share of expenditure is accounted for by households

with a child at the recommended age. Households with a pregnant woman, those expecting a birth in the next six months, account for less than 1% of expenditures on all formula products.

Table 4.2: *Formula purchases by age of child in household*

| | Share of expenditure | | | |
|---|---|---|---|---|
| Age of child | All formula | Infant formula | Follow on | Growing up |
| Pregnant | 0.8 | 1.1 | 0.3 | 0.6 |
| 0-6 months | 30.3 | 52.9 | 1.9 | 1.1 |
| 7-12 months | 44.3 | 39.0 | 83.0 | 2.7 |
| 13-24 months | 18.3 | 5.5 | 12.8 | 67.4 |
| 25-36 months | 6.3 | 1.5 | 2.0 | 28.2 |
| *Total* | *100* | *100* | *100* | *100* |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. Specialist formula are allocated to the groups based on their state age suitability.*

Table 4.3 shows the mean quantities purchased per day across households with different aged children. We report quantities in millilitres (ml) as made up. The table has three panels. The left-hand panel shows the share of households who ever purchase the product, with the separate columns showing households with children falling within the indicated age-bracket. The middle panel show mean millilitres (ml) per day across all households, including those that never purchase. The right-hand panel shows mean ml per day looking only at households who purchase the product at least once.

Table 4.3: *Mean quantity of formula purchased*

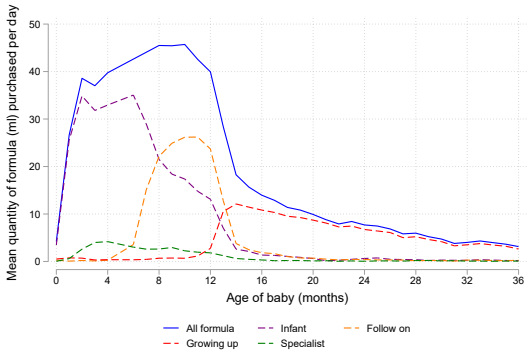
| | Share of households who purchase at least once | | | Mean ml per day (all households) | | | Mean ml per day (purchasing households) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0-6m | 7-12m | 13-36m | 0-6m | 7-12m | 13-36m | 0-6m | 7-12m | 13-36m |
| *Of which*: | | | | | | | | | |
| Baby formula | 58.9 | 64.5 | 46.0 | 178.9 | 184.1 | 25.9 | 303.9 | 285.5 | 112.4 |
| Infant formula | 52.2 | 34.3 | 7.0 | 144.2 | 74.7 | 2.5 | 276.4 | 218.2 | 71.0 |
| Follow on formula | 3.7 | 39.3 | 12.2 | 4.7 | 91.3 | 3.8 | 126.4 | 232.3 | 62.6 |
| Growing up formula | 0.9 | 3.8 | 34.0 | 1.0 | 2.2 | 18.4 | 113.9 | 59.8 | 108.4 |
| Hungry formula | 8.5 | 4.9 | 0.9 | 14.7 | 6.5 | 0.4 | 173.4 | 131.6 | 74.6 |
| Specialist | 6.4 | 3.9 | 1.6 | 14.3 | 9.4 | 0.8 | 223.0 | 237.8 | 93.2 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. 'Millilitre (ml) as made up' calculations are based on recommendations to mix one scoop of formula with 30ml of water, where one scoop contains about 4.6 grams, for formula purchased in powder form.*

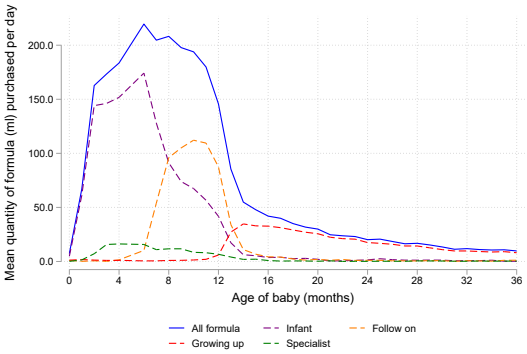
Figure 4.1 depicts these figures graphically. It shows the share of households who purchase and how much they purchase by the age of the child. We group households that are pregnant together in '0'. The left panel graphs the percentage of households that purchase formula and the right panel shows the mean daily amounts (in ml) purchased. Around 5% of households purchase formula during pregnancy. The percentage of purchasing households increases thereafter sharply, with 25% purchasing formula when the child is one month old and almost 40% purchasing when the child is two months of age. The curve flattens thereafter with around 42% purchase formula when the child is 6 months of age. The share of households that purchase formula peaks when the child is 10 months old at 45%. Once the child is over 12 months the probability of purchasing formula declines rapidly. Mean daily quantity of formula purchased follows a similar pattern, peaking at over 200ml when the child is 6 months.

Figure 4.1: *Purchases of formula by age of child*

(a) Share of households who purchase formula




(b) Mean quantity of formula (ml) purchased per day




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A.*

### Variation in formula purchases by household demographics

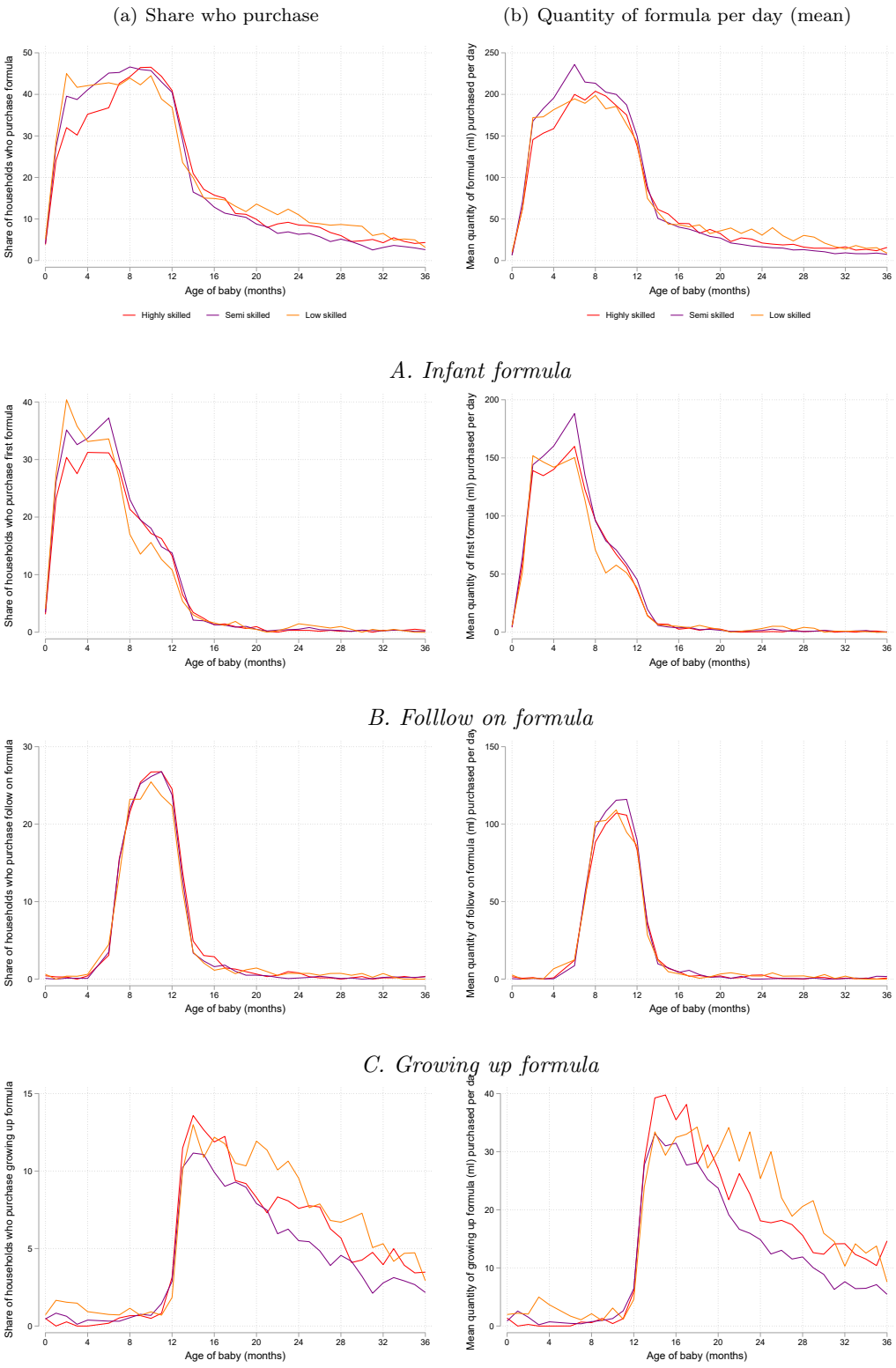
We compare formula purchases across a broad set of demographics. The general pattern across sub-groups is similar to that seen in Figure 4.1. There are five demographics where we highlight here:

- socio-economic status (SES) of the household head,
- birth order of the child aged 0-36 months in the household,
- the body mass index (BMI) of the main shopper,
- the household's ethnicity, and
- the age of the main shopper.

We show the equivalent of Figure 4.1 for each of these. For the first demographic discussed, socio-economic status, we show distributions for formula in general, i.e. where we have combined all types of formula, as well as by formula type (infant formula, follow-on formula, growing-up formula. Given that patterns are generally consistent, we show break-downs by type for other demographics in the appendix and only highlight differences in this section. Tests for statistical significances in the differences are shown in Appendix C.3, Tables C.3 to C.22.

- **Socio-economic status (SES)**: Patterns by SES are shown in Figure 4.2 and statistical differences between high and low SES are shown in Appendix Tables C.3-C.6. High SES households are less likely to purchase formula in general (i.e. where we have combined all types of formula) when the child is young (0-6 months) and purchase lower amounts, shown in the upper panel of the table. These differences are mainly observable when considering infant formula purchases (panel A). There are no statistical differences for purchases of follow-on formula. While there is suggestive evidence that those of low SES are more likely to purchase growing up formula, the sample size becomes small and so inhibits inference.

Figure 4.2: *Purchases of formula, by socioeconomic group*



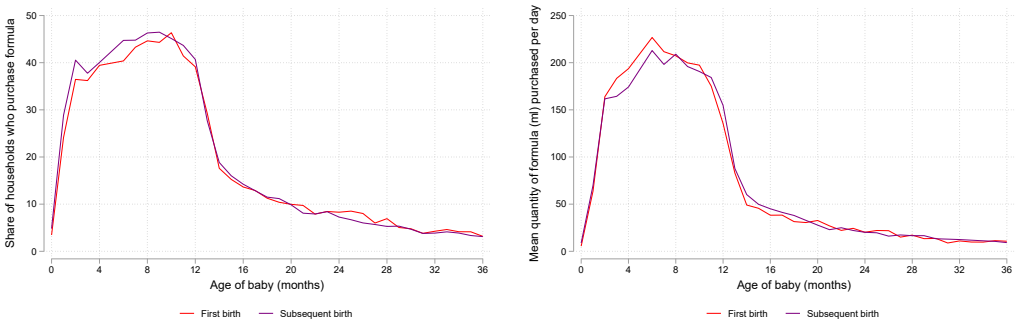

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A. 'Highly skilled' include social grade AB, 'Semi skilled' social grades C1 and C2, and 'low skilled' grades D and E.*

- **Birth order**: Differences in purchasing of formula by birth-order, shown in Figure 4.3, are - while statistically significantly different (shown in Appendix Table C.7) - minimal. This holds similarly for the analysis by formula type (Appendix Figure C.1 and tables C.8–C.10).

Figure 4.3: *Purchases of formula, by birth order*

(a) Share who purchase

(b) Quantity of formula per day (mean)



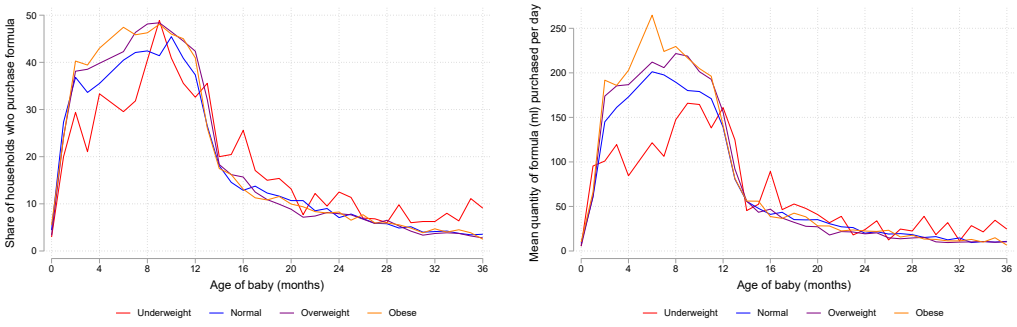

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A.*

- **BMI**: Figure 4.4 shows differences in formula purchases by weight status of the main shopper. We compare statistical differences by whether the shopper is underweight or normal versus obese (which includes obese, clinically obese and morbidly obese, together 22% of households). Households where the main shopper is obese are statistically more likely to purchase formula and to purchase larger quantities when they have a child 9 months old or younger. These differences are mainly observed for infant formula purchases (Appendix Figure C.2, tables C.12-C.14).

Figure 4.4: *Purchases of formula over first 6 months, by BMI status of main shopper*

(a) Share who purchase

(b) Quantity of formula per day (mean)




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A.*

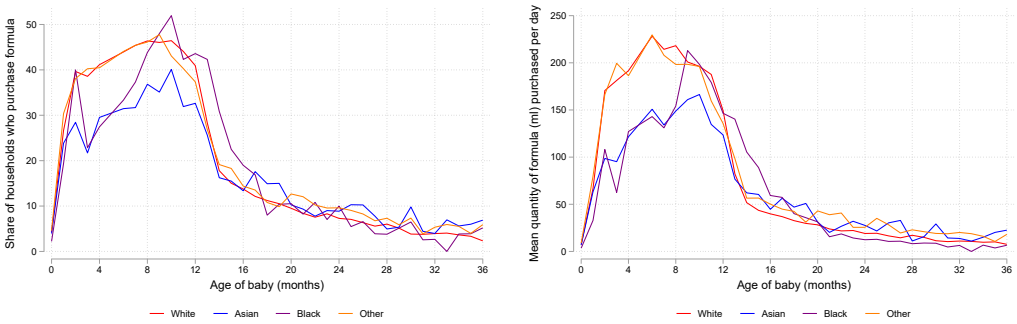
- **Ethnicity**: Formula purchasing patterns by ethnicity are shown in Figure 4.5. We test for differences in observed patterns by White and Others versus Asian and Black. Both the likelihood of purchase and amounts purchased are significantly higher for households of White or Other ethnicity. This holds in particular in the first eight to nine months of the

child's life. These differences are not observed for follow on formula purchases, but for infant and growing up formula (Appendix Figure C.3, tables C.16-C.18).

Figure 4.5: *Purchases of formula over first 6 months, by ethnicity*

(a) Share who purchase

(b) Quantity of formula per day (mean)



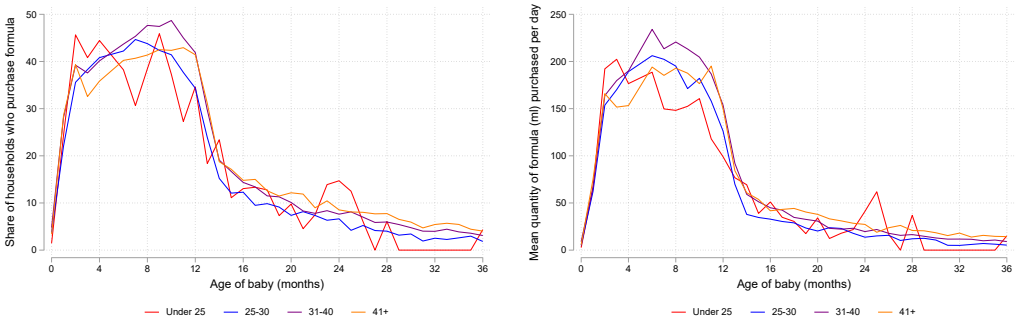

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A.*

- **Age of main shopper**: Patterns by age of the main shopper are shown in Figure 4.6. We check for significant differences when the main shopper is 30 years or younger, versus 31 years or older (Appendix Table C.19). The distributions do not differ statistically both for likelihood of purchase and amounts purchased. We observe some difference in infant formula purchases, where households with an older main shopper are more likely to purchase when they have a 9-13 months old, and purchase larger amounts (Appendix Figure C.4, tables C.20-C.22).

Figure 4.6: *Purchases of formula over first 36 months, by age of main shopper*

(a) Share who purchase

(b) Quantity of formula per day (mean)




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A.*

**Amount of formula purchased relative to producers' daily recommendation**

We contextualise the amount of formula purchased by examining how much formula households with a child aged 0-36 months purchase relative to what producers recommend carers to feed their child at the relevant age (for details on the guidelines used see Appendix C.6). For the first six months of life the producers' recommendations assume that the child is exclusively fed with formula, including no complementary breastfeeding.

We calculate the amount the household would have purchased if they had followed the producers recommendations for the time we observe the household in the data. We report the amount they did purchase as a share of this in Table 4.4. Less than 5% of households with a child 0-6 months of age purchase enough formula to meet 90% or more of producer-recommended levels. This percentage is just under 15% when the child is 7-12 months old, 5% when it is 13-24 months of age, and 2% at 25-36 months. On the other hand, 41% of households with a 0-6 months old do not purchase any formula. This percentage reduces to 37.5% when excluding those pregnant.

Table 4.4: *Share of households purchasing producer-recommended levels of formula*

| % of producer- | Percentage of households (%) | | | |
|---|---|---|---|---|
| recommended | 0-6 months | 7-12 months | 13-24 months | 24-36 months |
| 0 | 41.1 | 35.5 | 66.0 | 87.7 |
| 5 or less | 9.5 | 6.4 | 7.0 | 3.3 |
| 5-10 | 6.9 | 5.3 | 5.1 | 1.3 |
| 11-25 | 12.7 | 11.4 | 7.5 | 2.7 |
| 25-50 | 15.6 | 15.0 | 5.4 | 1.9 |
| 50-75 | 10.0 | 11.7 | 3.6 | 1.3 |
| 75-90 | 2.5 | 5.1 | 1.0 | 0.4 |
| 90-100 | 0.6 | 3.0 | 0.7 | 0.3 |
| More than 100 | 1.1 | 6.6 | 3.6 | 1.1 |
| *Total* | *100* | *100* | *100* | *100* |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. The lower bounds of indicated ranges of % purchased in Column (1) exclude the lowest amount (for example 5-10 excludes 5% but includes 10%).*

### 4.1.2 Amount purchased - baby food and drinks

We now turn to purchases of baby food and drinks. Table 4.5 and Figure 4.7 are akin to Table 4.3 and Figure 4.1, showing shares of households purchasing baby food or drinks at least once (left panel) and average amounts of purchased, expressed now as calories per day.[4]

Table 4.5: *Mean expenditure per month on baby food or drinks*

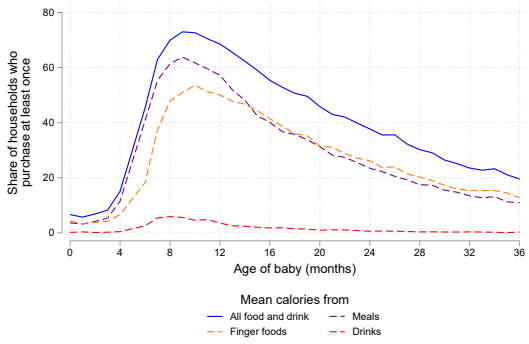
| | Share of households who purchase at least once | | | Mean calories per day (all households) | | | Mean calories per day (purchasing households) | | |
|---|---|---|---|---|---|---|---|---|---|
| Food group | 0-6m | 7-12m | 13-36m | 0-6m | 7-12m | 13-36m | 0-6m | 7-12m | 13-36m |
| All baby food and drink | 50.2 | 89.0 | 130.2 | 8.9 | 45.7 | 16.3 | 17.7 | 51.3 | 25.1 |
| *Of which*: | | | | | | | | | |
| Baby meals | 44.9 | 82.9 | 98.3 | 6.2 | 35.5 | 11.2 | 13.9 | 42.8 | 22.9 |
| Main meals | 18.2 | 66.7 | 68.8 | 1.8 | 17.4 | 5.8 | 9.6 | 26.1 | 16.7 |
| Fruit and vegetable first foods | 28.3 | 62.6 | 58.2 | 2.5 | 9.1 | 3.3 | 8.9 | 14.5 | 11.3 |
| Dry cereal/foods | 21.4 | 48.5 | 24.2 | 0.6 | 2.4 | 0.5 | 2.8 | 5.0 | 4.2 |
| Desserts and breakfasts | 17.7 | 54.7 | 40.3 | 1.3 | 6.5 | 1.6 | 7.1 | 11.8 | 8.2 |
| Soup and cooking sauces | 0.1 | 1.4 | 2.4 | 0.0 | 0.0 | 0.0 | 3.7 | 1.0 | 0.9 |
| Other | 12.6 | 8.3 | 1.2 | 0.1 | 0.1 | 0.0 | 0.9 | 1.0 | 1.1 |
| Baby finger food | 24.5 | 76.8 | 107.5 | 2.4 | 8.7 | 4.7 | 10.0 | 11.3 | 8.8 |
| Fruit and vegetable based finger foods | 5.3 | 22.1 | 62.0 | 0.3 | 0.8 | 1.2 | 5.7 | 3.7 | 4.0 |
| Savoury finger foods | 7.2 | 60.9 | 67.8 | 0.1 | 0.8 | 0.5 | 1.1 | 1.3 | 1.4 |
| Sweet finger foods | 19.7 | 69.3 | 84.5 | 2.1 | 7.1 | 3.0 | 10.5 | 10.2 | 7.2 |
| Baby drinks | 3.3 | 13.0 | 6.8 | 0.2 | 1.5 | 0.3 | 6.4 | 11.4 | 10.2 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months), whether or not they purchase baby food or drinks. For details see Appendix A. Calories are calculated using product classification based on maffcode.*

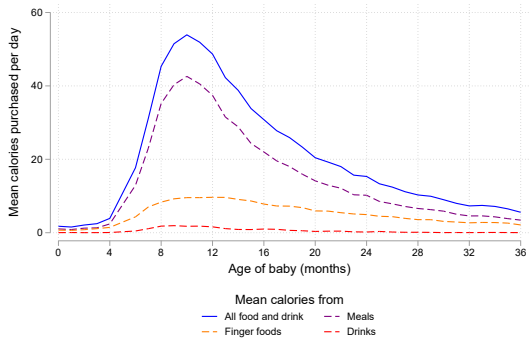
In Figure 4.1 we see that about one in ten households with a child aged 2 and 3 months purchase calories from baby food or drinks. The percentage increases to 70% for households with a 9-10 months-old, which is the age at which most households buy calories from baby food or drinks. Households with older children are less likely to purchase - with 35% of those with a 24-months old being observed purchasing at least once. We see a similar pattern across baby food, baby finger food and baby drinks. The pattern is also very similar when looking at number of calories purchased per day (right panel, Figure 4.7).

Figure 4.7: *Purchases of all baby food and drinks, from meals, from finger food and from drinks over 0-36 months*

(a) Share who purchase




(b) Calories purchased per day (mean)




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A. Calories are calculated using product classification based on maffcode.*

[4]Calories for these products are not included in the Kantar data. We use data from the Living Cost and Food Survey (LCFS). We allocate each product in Kantar a maffcode and use the nutrients from LCFS.

**Baby food or drink purchases by selected household demographics**

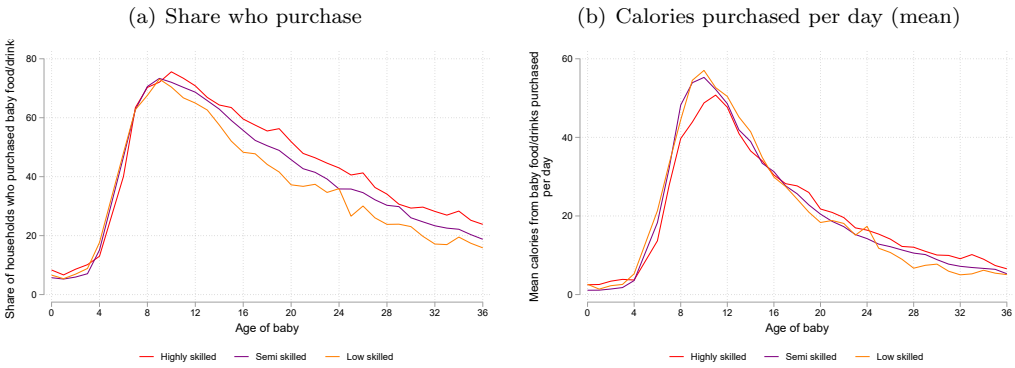
We present differences in baby food or drinks purchases by the same demographics as for formula purchases, discussed in Section 4.1.1:

- socio-economic status (SES) of the household head,
- birth order of the child aged 0-36 months in the household,
- the body mass index (BMI) of the main shopper,
- the household's ethnicity, and
- the age of the main shopper.

Means for each sub-group and p-values for difference in means for each month are provided in Appendix C.4, Tables C.23 to C.27.

- **Socio-economic status**: Patterns by SES are shown in Figure 4.8 and statistical differences between high and low SES are shown in Appendix Table C.23. High SES households are generally *more* likely to purchase baby food or drinks, particularly when they have a child older than one year. This is opposite to patterns observed for the likelihood of purchasing formula. Amounts purchased are, as for formula, significantly lower for high SES households.

Figure 4.8: *Purchases of all baby food or drinks - by socioeconomic status*



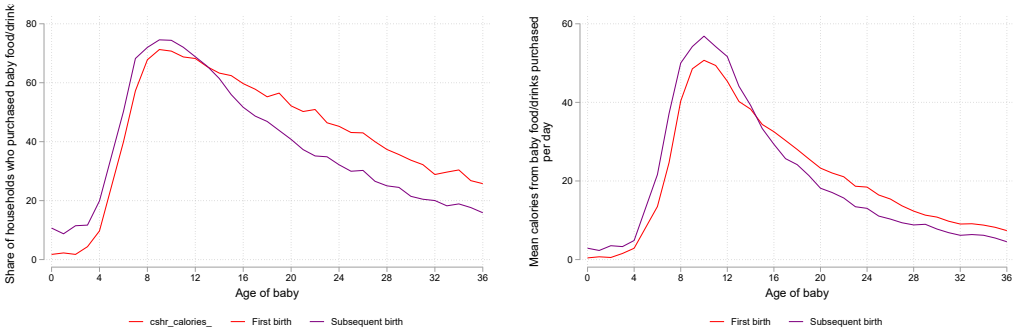

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A. Calories are calculated using product classification based on maffcode. 'Highly skilled' include social grade AB, 'Semi skilled' social grades C1 and C2, and 'low skilled' grades D and E.*

- **Birth order**: The likelihood of purchasing calories from baby food or drinks, and amounts purchased by birth order of the child are shown in Figure 4.9. Both the likelihood and amounts follow a similar pattern: they are significantly lower for households with a child approximately 12 months months or younger (including in-utero) if the child is first-born, and higher thereafter.

Figure 4.9: *Purchases of all baby food or drinks - by birth order*

(a) Share who purchase

(b) Calories purchased per day (mean)



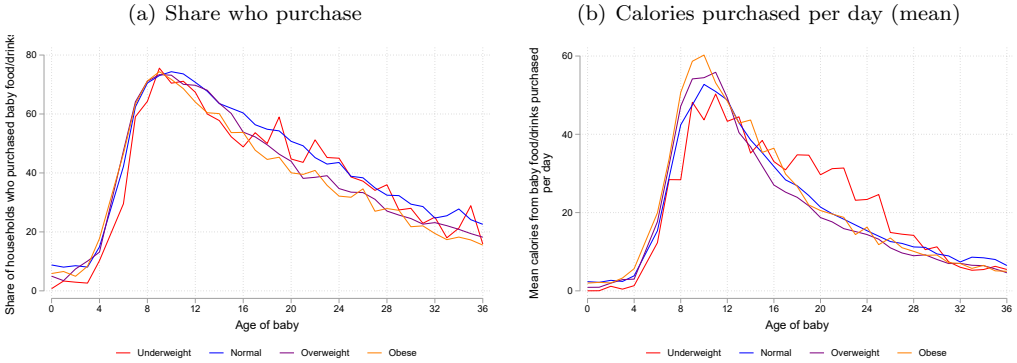

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A. Calories are calculated using product classification based on maffcode.*

- **BMI**: Households where the main shopper is obese are statistically significantly less likely to purchase calories from baby food or drinks, particularly when the child is 12 months or older. Those with an obese main shopper purchase larger quantities when they have a child age 5 to 10 months.

Figure 4.10: *Purchases of all baby food or drinks - by BMI*

(a) Share who purchase

(b) Calories purchased per day (mean)



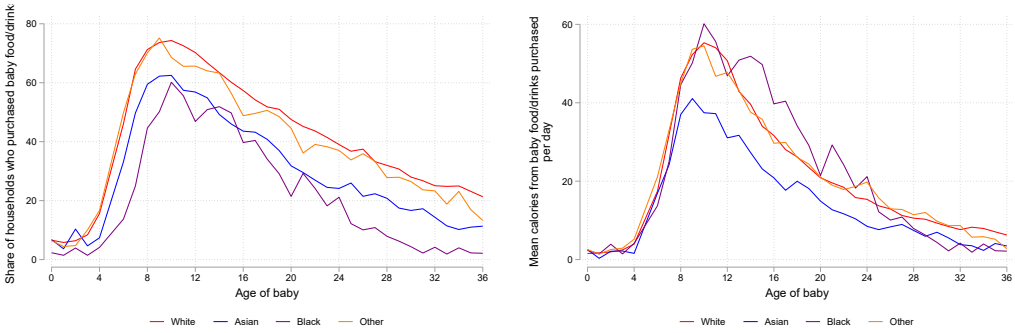

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A. Calories are calculated using product classification based on maffcode.*

- **Ethnicity**: Figure 4.11 shows that the likelihood of purchasing baby food or drinks is higher for households of White or Other ethnicity, compared to those Asian or Black. The difference is statistically significant throughout (Appendix Table C.26). The latter group purchases less calories from baby food or drinks, particularly if they have a child that is 4-12 months of age or older than two years. This holds especially for Asian households.

Figure 4.11: *Purchases of all baby food or drinks - by ethnicity*

(a) Share who purchase

(b) Calories purchased per day (mean)



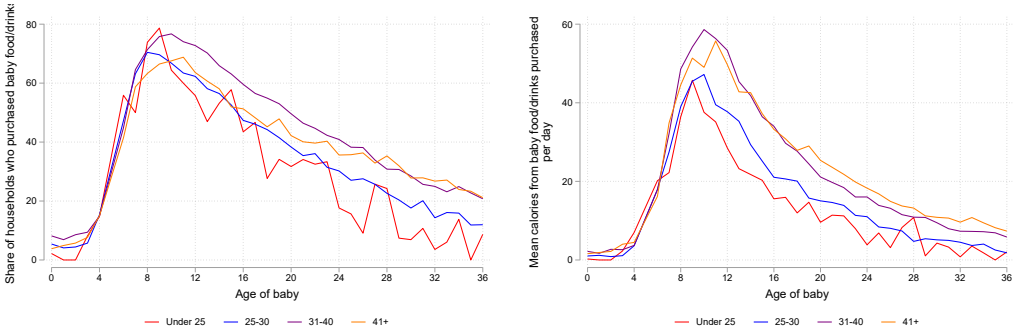

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A. Calories are calculated using product classification based on maffcode.*

- **Age of main shopper**: Households where the main shopper is 31 years or older, are statistically significantly more likely to purchase baby food or drinks, and quantities purchased are also higher for those with a main shopper aged 31 years plus.

Figure 4.12: *Purchases of all baby food or drinks - by age of main shopper*

(a) Share who purchase

(b) Calories purchased per day (mean)



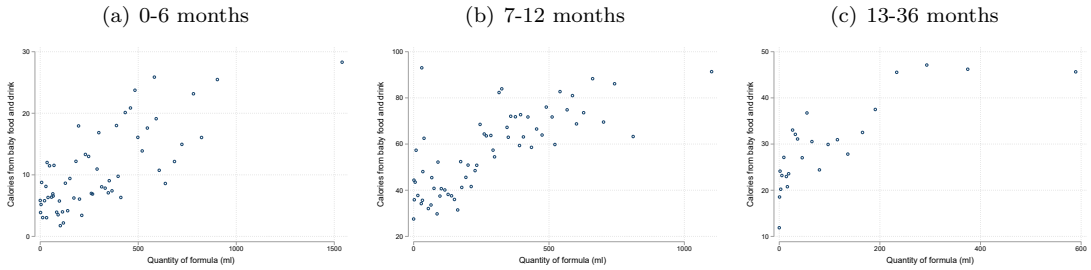

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A. Calories are calculated using product classification based on maffcode.*

### 4.1.3 Contemporaneous purchases: formula and baby food or drinks

We discuss in this section how formula and baby food or drink purchases relate contemporaneously.

Figure 4.13 displays daily quantities of formula (ml) purchased against quantities of baby food or drinks (calories) purchased for the age brackets 0-6, 7-12, and 25-36 months. We find, consistently across age brackets, that higher formula purchases are associated with higher baby food/drinks purchases. In Appendix Figure C.5 we show the same information broken down by formula type and display a similar pattern. Appendix C.5 displays these graphs for baby meals, baby finger food and baby drinks separately, showing that the patterns are consistent across these baby product sub-categories.

Figure 4.13: *Quantities of formula (ml) against baby food/drinks (calories) by age of child*




Correlation coefficients (p-values):

| 0.19 (0.000) | 0.33 (0.000) | 0.21 (0.000) |
|---|---|---|

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. Quantity of formula (ml) (x-axis) is grouped into 100 equal-sized bins, and means of the formula and food/drinks purchases within each bin are computed and plotted. Calories are calculated using product classification based on maffcode.*

#### Contemporaneous purchases when the child is 0-6 months of age

It is recommended that solid food, water and/or formula, are introduced to the child from 6 months of age. We showed earlier that 50% of households with a child aged 0-6 months buy baby food or drinks (Table 4.1), most of which is bought when the child is between 4 and 6 months of age (Figure 4.7).

We show in Table 4.6 that of households that do not purchase baby food or drinks when their child is 0-6 months old, less than 1% purchase 90% or more of purchaser recommended formula amounts, just 4% purchase more than 50% of purchaser recommended amounts. 27% of households with a 0-6 months old purchase neither baby food or drinks, nor formula.

Table 4.6: *Share of households purchasing producer-recommended levels formula*

| % of producer- | Percentage of households (%) | | | |
|---|---|---|---|---|
| recommended | 0-6 months | 7-12 months | 13-24 months | 25-36 months |
| 0 | 27.2 | 8.3 | 19.0 | 44.2 |
| 5 or less | 4.5 | 0.2 | 0.6 | 0.7 |
| 5-10 | 2.8 | 0.5 | 0.3 | 0.5 |
| 11-25 | 5.7 | 0.6 | 0.6 | 0.9 |
| 25-50 | 5.7 | 0.6 | 0.4 | 0.5 |
| 50-75 | 2.9 | 0.3 | 0.3 | 0.5 |
| 75-90 | 0.5 | 0.1 | 0.0 | 0.2 |
| 90-100 | 0.2 | 0.2 | 0.1 | 0.1 |
| More than 100 | 0.3 | 0.3 | 0.5 | 0.3 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. The lower bounds of indicated ranges of % purchased in Column (1) exclude the lowest amount (for example 5-10 excludes 5% but includes 10%).*

## 4.2 Households without a child aged 0-36 months

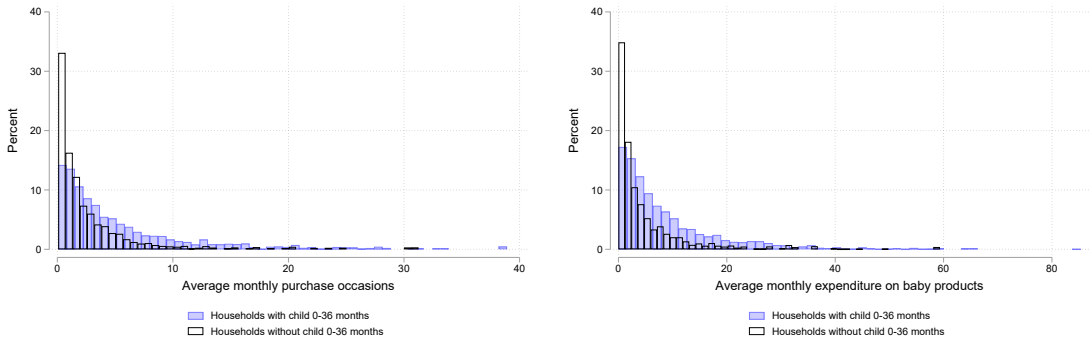
We showed in Table 2.2 that 24% of total expenditures on all commercial formula, baby food or drinks is incurred by households without a child aged 0-36 months.

The left panel of Figure 4.14 displays that these households generally purchase less frequently (white bars) than households with a child age 0-36 months (blue bars), and spend less (right panel).

Figure 4.14: *Comparison of purchases made by households with and without a child aged 0-36 months*

(a) Average monthly purchase occasions

(b) Average monthly expenditure




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with a child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and/or purchasing formula, baby food or drinks at some point during this period. For details see Appendix A.*

Figure 4.7 brings information of the two figures together, showing that almost 40% of households without a 0-36 month-old purchase at least twice a month, which compares to 66% for households with 0-36 months-old children. While amounts are somewhat lower, they are comparable. Those households that purchase at least twice a months spend on average £10 if they do not have a child, and £12 if they do.

Table 4.7: *Comparison of purchases made by households with and without a child aged 0-36 months*

| | Households with 0-36 months | Households without 0-36 months |
|---|---|---|
| % Purchase once a month or more | 82.5 | 58.8 |
| Mean expenditure if purchasing more than once | 10.51 | 7.51 |
| Mean expenditure if purchasing once a month or more | 1.98 | 0.96 |
| % Purchase twice a month or more | 65.6 | 38.5 |
| Mean expenditure if purchasing more than twice | 12.03 | 9.94 |
| Mean expenditure if purchasing twice a month or less | 3.28 | 1.61 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A.*

We provide more details of the household composition of these households in the Table 4.8. About one third have at least one child between the ages 3-10 years (22% have a child that is aged 37-48 months (3-5 years) but not younger, and 14% have a child age 5-10 years (but not younger). The remaining twwo thirds purchases are made by households without a child younger than ten years but either with (32%) or without (33%) a female 51 years or younger (the average age of onset of menopause).

Many of these households that purchase any formula, or baby food or drinks but do not have a child

aged 0-36 months, might be providing some childcare services. The Childcare and Early Years survey of parents, 2019, collected by the Department of Education provides information on use of childcare in England and informs that in 2019, 37% of 0-36 months old were receiving informal childcare, the large majority of which (87%) from grandparents.[5] In line, we see in Appendix Table C.1 that 25% of household heads without a child aged 0-36 months but purchasing formula, or baby food or drinks, were retired.

Table 4.8: *Purchases by households without a child aged 0-36 months*

| | | | Share of expenditure | | | | |
|---|---|---|---|---|---|---|---|
| | Number of households | Share of households | All baby products | Formula | Meals | Finger foods | Drinks |
| Youngest child 3-5 years old | 1,727 | 21.6 | 27.5 | 20.7 | 29.2 | 32.4 | 16.9 |
| Youngest child 5-10 years old | 1,096 | 13.7 | 20.2 | 16.2 | 19.5 | 24.5 | 27.2 |
| No young child, 1+ female pre-fertility | 2,575 | 32.1 | 27.7 | 36.9 | 27.5 | 19.1 | 24.1 |
| No young child, no female pre-fertility | 2,612 | 32.6 | 24.7 | 26.2 | 23.8 | 24.1 | 31.8 |
| *Total* | *9,027* | *100* | *100* | *100* | *100* | *100* | *100* |

*Notes: Kantar data October 2016 - February 2020. Sample includes household that purchase formula, baby food and drinks but do not have a child aged 0-36 months during this period. For details see Appendix A. 'Youngest child 2-3 years old' indicates that the household does not have a child aged 0-36 months in this period, but does have one 25-36 months old. '3-5 years' excludes 36 months, and '5-10 years' excludes 60 months. 'Pre-fertility' is defined as 51 years or younger.*

[5]The full breakdown is shown in Appendix C.12.

# 5 How are purchases of one product related to subsequent purchases?

In this final section of the report we analyse how formula, commercial baby food or drinks purchases relate sequentially. We do so by plotting purchases of specific product categories in one child age-bracket to purchases in the subsequent age-bracket.

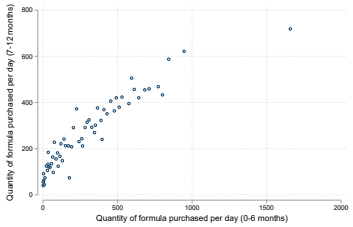
We first look at how purchases when the household has a 0-6 months old relate to purchases when it has a 7-12 months old, followed by how purchases with a 7-12 months-old relate to purchases when the child is 13-24 months, and finally purchases at 13-24 months to 25-36 months. We show in Appendix D the same graphs for the demographic groups discussed previously. We do not find any noteworthy differences in the presented patterns.

For each, we the Figure has two panels. The upper panels looks at formula purchases in both periods (Sub-figure (a)), formula purchases in the early period and baby food/drinks in the later period (Sub-figure (b)), and baby food/drinks purchases in both periods (Sub-figure (c)). The lower panels zoom in on age-specific formula types.

Figure 5.1 depicts results for subsequent purchases 0-6 months to 7-12 months. We see a positive and significant relationship between all combinations considered: the more ml of formula a household purchase when the child is 0-6 months of age, the more it purchases when the child is 7-12 months old. The positive correlation is strongest for subsequent formula purchases.

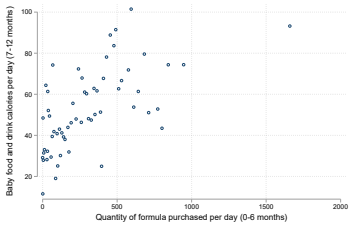
Figure 5.1: *Sequential purchases - 0-6 months and 7-12 months*

(a) Formula - both periods



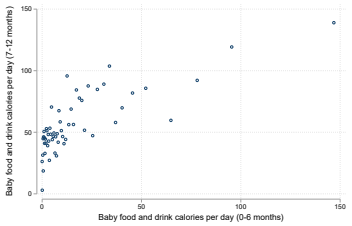

0.66 (0.000)

(b) Formula - baby food



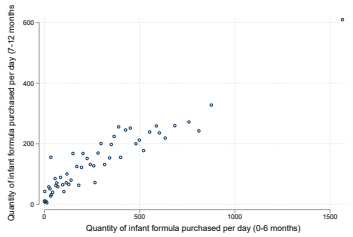

0.29 (0.000)

(c) Baby food - both periods



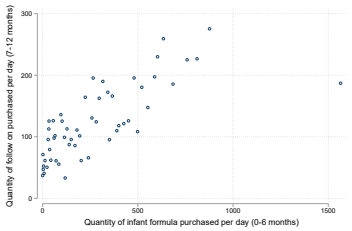

0.39 (0.000)

(d) Infant formula - both periods



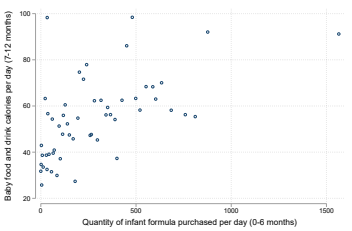

0.58 (0.000)

(e) Infant formula - follow on




0.29 (0.000)

(f) Infant formula - baby food



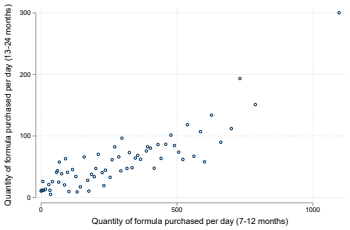

0.27 (0.000).

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a 0-36 months-old in this period but observed to purchase formula, baby food or drinks. For details see Appendix A. Quantity of formula (ml) purchased (x-Axis) within a specific child-age band is grouped into 100 equal-sized bins, and means of purchases within each bin are computed and plotted against means of ml purchases for this bin at the subsequent child-age band.*

Figure 5.2 shows similar positive relationships when looking at how purchasing with a 7-12 months-old correlates with purchases with a 13-24 months-old. We now observe the strongest relationship between baby food/drinks purchases across age brackets.

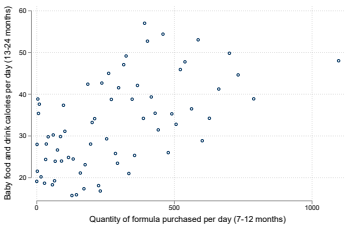
Figure 5.2: *Sequential purchases -7-12 months and 13-24 months*

(a) Formula - both periods



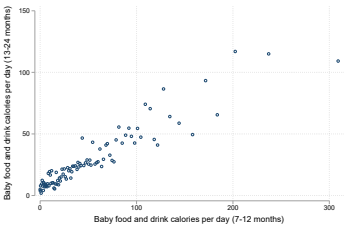

0.37 (0.000)

(b) Formula - baby food



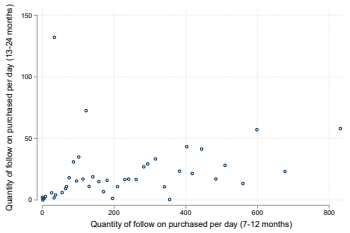

0.19 (0.000)

(c) Baby food - both periods



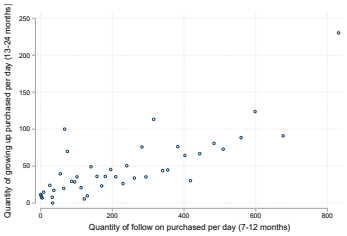

0.56 (0.000)

(d) Follow on - both periods



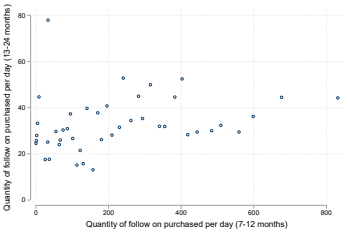

0.24 (0.000)

(e) Follow on - growing up




0.35 (0.000)

(f) Follow on - baby food



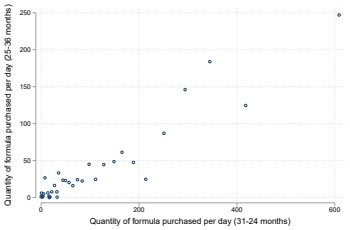

0.11 (0.000).

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a 0-36 months-old in this period but observed to purchase formula, baby food or drinks. For details see Appendix A. Quantity of formula (ml) purchased (x-Axis) within a specific child-age band is grouped into 100 equal-sized bins, and means of purchases within each bin are computed and plotted against means of ml purchases for this bin at the subsequent child-age band.*

Finally, Figure 5.3 depicts purchasing with a 13-24 months-old in relation to purchases with a 25-36 months-old. We again observe the strongest relationship between baby food/drinks purchases across age brackets, partly driven by much reduced formula purchases at these later ages.

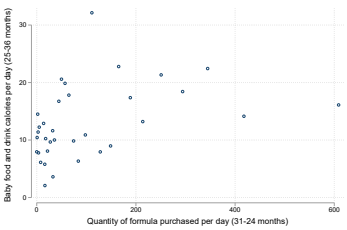
Figure 5.3: *Sequential purchases -13-24 months and 25-36 months*

(a) Formula - both periods



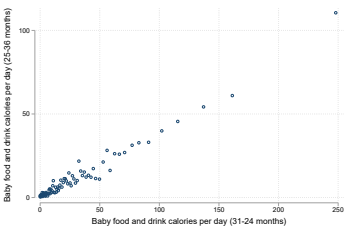

0.58 (0.000)

(b) Formula - baby food



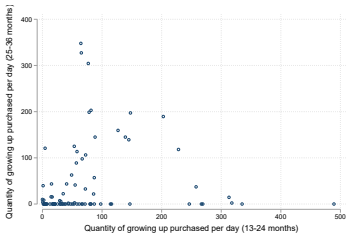

0.11 (0.000)

(c) Baby food - both periods



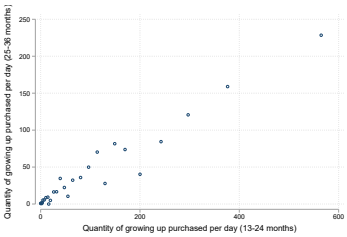

0.69 (0.000)

(d) Follow on - growing up



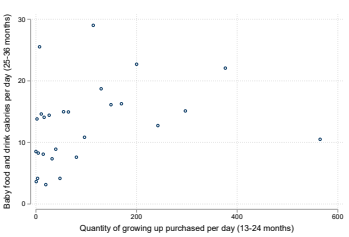

0.11 (0.000)

(e) Growing up - both periods




0.59 (0.000)

(f) Growing up - baby food




0.09 (0.000).

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a 0-36 months-old in this period but observed to purchase formula, baby food or drinks. For details see Appendix A. Quantity of formula (ml) purchased (x-Axis) within a specific child-age band is grouped into 100 equal-sized bins, and means of purchases within each bin are computed and plotted against means of ml purchases for this bin at the subsequent child-age band.*

# Appendix

## Quantification of purchasing of formula, commercial baby meals, finger foods and drinks (using Kantar data)

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Institute for Fiscal Studies
March 24, 2021

# A Appendix - Data

## A.1 Identifying children

To identify whether a household contains a child age 0-36 months at any point during our analysis period, we use information on date of births, as provided by Kantar. Table A.1 shows the number of births that are recorded in the Kantar data relevant for our analysis. Since we focus on the purchasing period of October 2016 to February 2020, we include all births from October 2014 to February 2020, i.e. children not born during our purchase data window but still 0-36 months of age at some point in this time period. A total of 11,416 births are recorded in the Kantar sample over this period.

Table A.1: *Number of births in the Kantar panel by year*

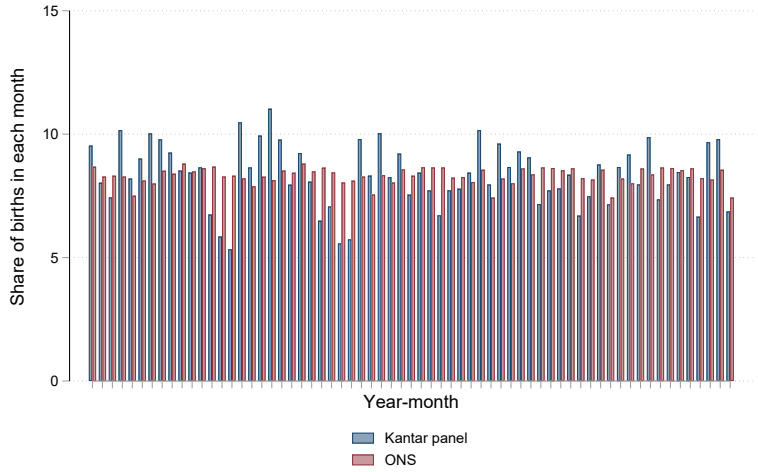
| Year | Number of births |
|---|---|
| Oct-Dec 2014 | 1,230 |
| 2015 | 3,708 |
| 2016 | 2,404 |
| 2017 | 1,683 |
| 2018 | 1,269 |
| 2019 | 992 |
| Jan-Feb 2020 | 131 |
| Total | 11,416 |

*Notes: Kantar data October 2014 - February 2020.*

The share of births in each month of the year compared to figures provided by the Office for National Statistics (ONS) is shown in Figure A.1. Between October 2014 - February 2020 the Kantar data matches the patterns observed in the ONS data generally well.[6]

[6]Conversations with Kantar suggest that deviations from ONS data are within expected margins.

Figure A.1: *Timing of births*




*Notes: The figure shows for each month between October 2014 and February 2020 the number of birth recorded, as a total of number of births in the respective year, using Kantar data (blue) and ONS data (red).*

## A.2 Child age bands

The World Health Organization (WHO) advises that the first two years are crucial for a child's development during early years of life also from a nutritional perspective, as beyond two years, reversal of nutritional deficiencies become very difficult. The age bands we distinguish within this period (0-6 months, 7-12 months and 13-24 months, 25-36 months) are linked to key developmental milestones with regard to nutrition and feeding. During the first six months of life, children should be exclusively breastfed, or fed with commercial infant formulas that have been specially developed to have a nutrition profile closer to breast-milk. At 6 months of age, breast-milk or infant formula is recommended to remain a vital source of nutrition, but should be supplemented with solid foods to meet calorie requirements. From 12 months, children can move towards a family diet. The WHO advises to completely discontinue breastfeeding only from 24 months.[7]

## A.3 Households with one, versus more than one, child age 0-36 months at any one point in time

The 11,416 children born over the period October 2014 - February 2020, live in 9,474 households, as shown in Table A.2. 7,548 (80%) include at some point they are observed in the data one child aged 0-36 months (but never more), a further 1,851 households (20%) have at some point two children 0-36 months (at other times in the data they might be observed with less than two children in the data), 71 households are at some point observed with three and 4 households are at some point observed with four children falling in the age category of interest.

[7]Source: World Health Organisation (WHO). "Infant and young child feeding", 24 August 2020. https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding. Last accessed 10 December 2020.

Table A.2: *Presence of children 0-36 months*

| Number of children 0-36mths in household | Number of households | Percentage of households |
|---|---|---|
| 1 | 7,548 | 79.7 |
| 2 | 1,851 | 19.5 |
| 3 | 71 | 0.7 |
| 4 | 4 | 0.0 |
| *All* | *9,474* | *100* |

*Notes: Kantar data October 2016 - February 2020. Number of children age 0-36 months in household defined using information on household member's timing of birth.*

We focus our analysis on households with only one baby aged 0-36 months at any point during October 2016 - February 2020. We show in Table A.3 that these households (Column (1)) are very comparable to households with more than one child in this age group at some point during this period (Column (2)) along a number of demographics. Some differences are observed in working status. Those with multiple children are less likely to work over 30 hours and more likely not working.

Table A.3: *Demographics for households with one or more than one child aged 0-36 months*

| | Share of households with... | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| | Child(ren) 0-36 months | Single child 0-36 months | Multiple children 0-36 months |
| Highly skilled | 23.9 | 23.6 | 25.1 |
| Semi skilled | 55.5 | 55.5 | 55.3 |
| Unskilled | 20.6 | 20.9 | 19.7 |
| White | 78.0 | 77.9 | 78.4 |
| Asian | 7.9 | 8.1 | 7.2 |
| Black | 3.4 | 3.3 | 4.0 |
| Other | 10.7 | 10.8 | 10.4 |
| 1 Over 30 hours | 41.7 | 43.6 | 34.5 |
| 2 8-29 hours | 30.0 | 29.6 | 31.5 |
| 3 Under 8 hours | 2.3 | 2.3 | 2.6 |
| 4 Unemployed | 3.9 | 4.1 | 3.1 |
| 6 Retired | 0.9 | 0.9 | 0.7 |
| 11 Full time education | 1.4 | 1.4 | 1.5 |
| 12 Not working | 19.8 | 18.2 | 26.0 |
| 1 Underweight | 2.1 | 2.1 | 1.7 |
| 2 Normal | 36.3 | 36.0 | 37.6 |
| 3 Overweight | 26.6 | 26.7 | 26.4 |
| 4 Obese | 35.0 | 35.2 | 34.2 |
| 0 Unknown | 10.4 | 10.4 | 10.1 |
| 1 0 - 9,999 | 4.1 | 4.2 | 3.3 |
| 2 10,000 - 19,999 | 13.3 | 13.3 | 13.4 |
| 3 20,000 - 29,999 | 17.9 | 18.2 | 16.6 |
| 4 30,000 - 39,999 | 17.5 | 17.3 | 18.3 |
| 5 40,000 - 49,999 | 13.5 | 13.4 | 13.6 |
| 6 50,000 - 59,999 | 9.5 | 9.3 | 10.2 |
| 7 60,000 - 69,999 | 5.7 | 5.8 | 5.2 |
| 8 70,000 + | 8.3 | 8.0 | 9.2 |
| Under 25 | 4.1 | 4.1 | 4.0 |
| 25-30 | 23.3 | 23.0 | 24.4 |
| 31-40 | 55.5 | 54.3 | 60.1 |
| 41-50 | 13.3 | 14.4 | 9.0 |
| 51+ | 3.8 | 4.1 | 2.5 |
| *Number of households* | *5,436* | *4,881* | *555* |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with at least one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). 'Highly skilled' include social grade AB, 'Semi skilled' social grades C1 and C2, and 'low skilled' grades D and E. 'Obese' includes those obese, clinically and morbidly obese.*

## A.4 Reporting

We discuss two points related to household reporting and implications for our analysis, namely (i) the length of time we observe households and (ii) periods where we do not observe any reported formula, or baby food and drinks purchases.

**Entry, exit and length of time in panel**

Households enter the panel at different points in time and remain in the panel for varying lengths of time. This is relevant to consider since formula has a shelf life. Unopened, powdered formula can last up to a year, making it possible that households purchase formula in advance of the birth. And indeed, of households that we observe for at least 6 months prior to birth (10% of the households with a child aged 0-36 months at some point) and that we observe for the whole period that they have a baby aged 0-6 months, 12% purchase formula before the child is born. The vast majority of these households go on to purchase formula at least once again after giving birth but before their child turns 6 months. 50% of households in the sample enter the data after giving birth and we hence do not observe potential stock-purchases. However, since purchases pre-birth account on average for less than 1% of formula purchases prior to the baby reaching 6 months of age (for the 10% of households that purchase before birth), the underestimation is likely to be negligible.

**Periods of non-reporting**

We consider periods of non-reporting and assess whether presented results vary depending on how one treats these periods. We define a household to be non-reporting if it is not observed making any purchases (independent of whether formula, baby food and drinks or none-child specific products) over a period of 14 days. This could be because they for example went on holiday or they stopped reporting for some other reason. One might, for example, expect more pronounced lack of reporting around child birth. We then conduct two checks:

1) For one, we remove months of poor reporting when a household does not appear in the Kantar World Panel purchasing anything for two consecutive weeks.[8] 455 households have no periods of good reporting during the time that they have a child aged 0-36 months and are therefore excluded entirely from this analysis sample, leaving us with 12,097 households, of which 4,837 have a child under the age of three.

2) Second, we consider the sub-set of households that are observed making purchases in every month during the period they are in the panel. This leaves a sample of 4,676 households, of which 2,799 have a child under the age of years.

We compare in Table A.4 household demographics for the full sample and the two described sub-samples. We can see that across the different samples, households look very similar, both for the full set of households (first three columns) as well as for the subset of households without and with a child age 0-36 months over the period (last 6 columns).

[8] To be very specific, if a households is not observed purchasing any groceries in the last week of one month and the first week of the next, both of these months are excluded from the analysis for that specific household.

Table A.4: *Household demographics by sample types of reporting*

| | Share of households | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All households | | | Households with a child aged 0-36 months | | | Households without a child 0-36 months | | |
| | Full sample | Excludes poor reporting months | Households w/out poor reporting | Full sample | Excludes poor reporting months | Households w/out poor reporting only | Full sample | Excludes poor reporting months | Households w/out poor reporting only |
| All | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Highly skilled | 21.2 | 21.2 | 21.2 | 23.8 | 23.8 | 23.8 | 18.4 | 18.4 | 18.6 |
| Semi skilled | 56.3 | 56.3 | 56.2 | 55.6 | 55.6 | 55.6 | 57.0 | 57.0 | 57.0 |
| Unskilled | 22.5 | 22.6 | 22.6 | 20.7 | 20.7 | 20.7 | 24.6 | 24.6 | 24.9 |
| White | 81.5 | 81.3 | 81.2 | 76.7 | 76.7 | 76.7 | 86.8 | 86.8 | 86.8 |
| Asian | 5.8 | 6.0 | 5.8 | 8.0 | 8.0 | 8.2 | 3.4 | 3.4 | 3.8 |
| Black | 2.9 | 3.2 | 2.9 | 3.5 | 3.6 | 3.5 | 2.3 | 2.3 | 2.3 |
| Other | 9.8 | 9.9 | 10.3 | 11.9 | 11.9 | 12.0 | 7.4 | 7.5 | 7.5 |
| 1 Over 30 hours | 39.8 | 39.9 | 39.6 | 42.5 | 42.5 | 42.5 | 36.9 | 36.9 | 37.2 |
| 2 8-29 hours | 25.2 | 25.2 | 25.7 | 29.7 | 29.7 | 29.7 | 20.2 | 20.2 | 20.2 |
| 3 Under 8 hours | 2.1 | 2.1 | 2.1 | 2.3 | 2.3 | 2.3 | 1.9 | 1.9 | 1.9 |
| 4 Unemployed | 3.1 | 3.3 | 3.2 | 3.8 | 3.8 | 3.8 | 2.3 | 2.4 | 2.4 |
| 6 Retired | 12.5 | 12.7 | 11.0 | 0.9 | 0.9 | 0.9 | 25.3 | 25.4 | 25.4 |
| 11 Full time education | 1.0 | 1.0 | 1.1 | 1.6 | 1.6 | 1.6 | 0.5 | 0.5 | 0.5 |
| 12 Not working | 16.3 | 16.4 | 17.0 | 19.3 | 19.3 | 19.3 | 13.0 | 13.0 | 13.2 |
| 1 Underweight | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.7 | 1.8 | 1.8 |
| 2 Normal | 34.3 | 34.2 | 34.5 | 36.7 | 36.8 | 36.7 | 31.5 | 31.6 | 31.5 |
| 3 Overweight | 28.0 | 27.9 | 27.7 | 26.8 | 26.9 | 26.8 | 29.4 | 29.4 | 29.4 |
| 4 Obese | 35.9 | 36.3 | 35.9 | 34.6 | 34.7 | 34.6 | 37.4 | 37.5 | 37.4 |
| 0 Unknown | 14.0 | 13.9 | 13.5 | 10.6 | 10.6 | 10.6 | 17.6 | 17.6 | 17.6 |
| 1 0 - 9,999 | 4.6 | 4.6 | 4.6 | 3.7 | 3.7 | 3.7 | 5.7 | 5.7 | 5.8 |
| 2 10,000 - 19,999 | 15.8 | 15.8 | 15.7 | 12.9 | 12.9 | 12.9 | 19.0 | 19.0 | 19.1 |
| 3 20,000 - 29,999 | 18.2 | 18.3 | 18.3 | 17.5 | 17.5 | 17.5 | 18.9 | 18.9 | 19.1 |
| 4 30,000 - 39,999 | 15.7 | 15.8 | 16.0 | 17.5 | 17.5 | 17.5 | 13.8 | 13.8 | 13.9 |
| 5 40,000 - 49,999 | 12.1 | 12.1 | 12.3 | 14.0 | 14.1 | 14.1 | 10.0 | 10.0 | 10.0 |
| 6 50,000 - 59,999 | 8.3 | 8.3 | 8.4 | 10.0 | 10.1 | 10.0 | 6.3 | 6.3 | 6.5 |
| 7 60,000 - 69,999 | 4.7 | 4.7 | 4.6 | 5.7 | 5.7 | 5.7 | 3.6 | 3.6 | 3.7 |
| 8 70,000 + | 6.6 | 6.6 | 6.6 | 8.1 | 8.1 | 8.1 | 5.0 | 5.0 | 5.2 |
| Under 25 | 2.2 | 2.4 | 2.3 | 3.5 | 3.6 | 3.5 | 0.7 | 0.7 | 0.7 |
| 25-30 | 14.5 | 15.3 | 15.1 | 24.0 | 24.2 | 24.1 | 4.0 | 4.6 | 4.0 |
| 31-40 | 36.8 | 37.1 | 39.0 | 57.4 | 57.4 | 57.4 | 14.0 | 14.2 | 14.1 |
| 41-50 | 17.0 | 17.0 | 16.2 | 11.2 | 11.3 | 11.3 | 23.5 | 23.5 | 23.6 |
| 51+ | 29.4 | 29.9 | 26.5 | 3.8 | 4.0 | 3.9 | 57.8 | 58.0 | 58.0 |
| *Number of households* | 12,552 | 11,377 | 6,203 | 6,598 | 5,832 | 3,306 | 5,954 | 5,861 | 4,007 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period. 'Highly skilled' include social grade AB, 'Semi skilled' social grades C1 and C2, and 'low skilled' grades D and E. 'Obese' includes those obese, clinically and morbidly obese.*

In Table A.5 we provide descriptive statistics related to purchasing patterns in these three samples. The first two panels show purchasing at the extensive margin, i.e. percentage of households buying formula or baby foods or drinks depending on the age group their 0-36 months old child falls into at time of purchase. The percentage of households buying any of these categories falls when excluding periods of non-reporting, driven by losing complete households (those that report only rarely in the data), rather than losing just the periods excluded. On the other hand, when including only households that do not have any period of non-reporting, the likelihood of purchasing increases, however only marginally so.

The remaining two panels show the intensive margin of purchasing in terms of amounts spent on formula and food or drinks. Mean monthly expenditures increase slightly when excluding periods of non-reporting and a little more when looking at households that have no periods of non-reporting over the entire period they are in the panel.

Overall, household demographics and purchasing patterns are found to be consistent.

Table A.5: *Purchasing patterns by sample types of reporting*

| | 0-6 months | 6-12 months | 12-24 months | 25-36 months |
|---|---|---|---|---|
| | % Buys formula at any point in time | | | |
| Full sample | 58.87 | 64.49 | 33.98 | 12.29 |
| Excluding poor reporting months | 57.33 | 62.91 | 31.43 | 11.46 |
| Households w/o poor reporters | 60.80 | 66.93 | 34.19 | 12.52 |
| | % Buys food and drinks at any point in time | | | |
| Full sample | 50.17 | 89.05 | 78.19 | 52.27 |
| Excluding poor reporting months | 46.82 | 88.39 | 75.57 | 50.28 |
| Households w/o poor reporters | 57.11 | 91.16 | 76.21 | 53.92 |
| | Mean monthly expenditure on formula | | | |
| Full sample | 9.89 | 9.86 | 2.05 | 0.70 |
| Excluding poor reporting months | 11.43 | 11.86 | 2.47 | 0.84 |
| Households w/o poor reporters | 12.55 | 12.87 | 2.88 | 0.91 |
| | Mean monthly expenditure on baby food and drinks | | | |
| Full sample | 1.81 | 9.13 | 5.27 | 2.01 |
| Excluding poor reporting months | 1.95 | 10.80 | 6.39 | 2.41 |
| Households w/o poor reporters | 2.71 | 11.83 | 6.67 | 2.81 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period. The table shows purchasing information for the full sample, excluding periods of non-reporting (defined as no purchases over a consecutive 2 week window), and including only households without any period of non-reporting.*

# B Appendix - What is purchased

## B.1 Formula

Table B.1 details for each type of formula the specific brands that household purchased over the analysed period, and - as in Table 3.1 - but now for each specific product, the total expenditure, the share of expenditure (where the share is calculated over the total within each formula type), as well as the average price of powder and ready-to-feed varieties (per kg and per litre of product,). Consistent across formula type, the dominant brands are Cow & Gate, Aptamil and SMA, which together account for around 75% of the total expenditure on each formula type. Within infant focmula, Aptamil is the market leader, for follow on and growing up formula Cow & Gate are taking the first spot.

Table B.1: *Formula brands*

| | | | Average price (£) | |
|---|---|---|---|---|
| Formula type | Brand | Expenditure share (%) | Per kg of formula | Per litre of ready to drink |
| First formula | Aptamil First Milk | 34.98 | 12.77 | 4.79 |
| | Cow+Gate First Infant Mlk | 33.52 | 9.99 | 4.32 |
| | SMA Pro First Baby Milk | 15.87 | 11.69 | 3.75 |
| | Aldi First Infnt Baby Mlk | 6.67 | 7.68 | |
| | Hipp Org First Baby Milk | 4.82 | 10.93 | 3.84 |
| | Aptamil Profutra Frst Mlk | 3.64 | 16.23 | 5.62 |
| | SMA L/S Frst Baby Milk | 1.97 | 9.37 | |
| | Bebivita First Infant Mlk | 0.74 | 8.98 | |
| | Sains Ltl Ones First Milk | 0.66 | 7.78 | |
| | Kendamil First Milk | 0.64 | 10.53 | |
| | SMA Orgnc First Baby Milk | 0.44 | 15.00 | |
| | SMA First Infnt Baby Milk | 0.33 | 10.98 | 16.67 |
| | SMA HA First Baby Milk | 0.28 | 15.59 | |
| | Aptamil Sensavia Frst Mlk | 0.23 | | 26.18 |
| | *Total* | 100 | 11.1 | 4.5 |
| Follow on formula | Cow+Gate Follow On Milk | 37.33 | 9.77 | 3.50 |
| | Aptamil Follow On Milk | 31.14 | 12.46 | 4.05 |
| | SMA Pro Follow On B/Milk | 14.50 | 11.85 | 3.66 |
| | Aldi Follow On Baby Milk | 6.56 | 7.73 | |
| | Hipp Org Follow On B/Milk | 4.91 | 10.75 | 3.69 |
| | Nanny Care Follow On Mlk | 4.61 | 23.33 | |
| | Aptamil Prftra Flw On Mlk | 3.84 | 16.48 | 5.35 |
| | SMA LS Follow On B/Milk | 3.82 | 9.37 | |
| | Sains Ltl Ones Baby Milk | 1.12 | 7.70 | |
| | Similac Follow On B/Milk | 0.96 | 14.66 | |
| | Bebivita NGM Baby Food | 0.85 | 10.34 | |
| | Kendamil Fllw On Bby Mlk | 0.74 | 10.29 | |
| | SMA Orgnc Fllw On B/Milk | 0.70 | 15.00 | |
| | Hipp Org Good Night B/Mlk | 0.59 | 16.12 | |
| | Aptamil Snsvia Flw On Mlk | 0.52 | 17.49 | |
| | Mtrna Mhdrn Follow On Mlk | 0.33 | 14.27 | |
| | SMA Follow On Baby Milk | 0.19 | | 3.20 |
| | *Total* | 100 | 10.8 | 3.8 |

| Formula type | Brand | Expenditure share (%) | Average price (£) | |
|---|---|---|---|---|
| | | | Per kg of formula | Per litre of ready to drink |
| Growing up formula | Cow+Gate Growing Up Milk | 30.52 | 9.45 | 2.95 |
| | Aptamil Growing Up Milk | 28.31 | 11.75 | 3.47 |
| | Alpro Sya Growing Up Milk | 15.10 | | 1.37 |
| | SMA Pro Baby Milk | 14.08 | 10.96 | |
| | Aptamil Prftra Grng Up Mk | 3.94 | 16.26 | |
| | Nestle Nido Baby Milk | 3.82 | 8.14 | |
| | Hipp Org Grwng Up B/Mlk | 2.44 | 10.22 | 3.37 |
| | Similac Growing Up Milk | 1.47 | 15.12 | |
| | Kendamil Toddler Baby Mlk | 1.37 | 9.81 | |
| | SMA Toddler Baby Milk | 1.36 | 7.74 | 2.92 |
| | SMA Advanced HM-O Bby Mlk | 1.19 | 18.74 | |
| | Nanny Care Growing Up Mlk | 0.92 | 25.53 | |
| | SMA Pro Toddler Baby Milk | 0.83 | | 3.21 |
| | SMA Orgnc Baby Milk | 0.56 | 15.00 | |
| | Bebivita Growing Up Milk | 0.51 | | 5.98 |
| | *Total* | 100 | 10.5 | 2.1 |
| Hungry formula | Cow+Gate Hungry Milk | 47.84 | 9.94 | 3.78 |
| | Aptamil Hungry Milk | 28.10 | 12.88 | 4.15 |
| | SMA Extra Hngry Baby Milk | 19.07 | | 10.42 |
| | Hipp Org Hungry Baby Milk | 6.19 | 11.10 | 3.80 |
| | *Total* | 100 | 10.9 | 6.9 |
| Specialist | Cow+Gate Comfort Baby Mlk | 23.66 | 12.91 | |
| | Aptamil Comfort Baby Milk | 16.12 | 15.25 | |
| | Aptamil Anti Reflux Milk | 15.86 | 15.23 | |
| | Cow+Gate Anti Rflx B/Mlk | 15.52 | 13.10 | |
| | SMA Wysoy Baby Milk | 8.74 | 14.37 | |
| | SMA Comfort Baby Milk | 8.22 | 13.75 | |
| | Nutramigen Lipil Sya Milk | 7.83 | 37.14 | |
| | SMA Stay Down Baby Milk | 7.43 | 11.16 | |
| | Hipp Comfort Baby Milk | 5.08 | 13.96 | |
| | SMA Pro Anti Rflx B/Mlk | 4.60 | 12.99 | |
| | Hipp Org Anti Reflux Milk | 4.28 | 13.74 | |
| | SMA Lactose Free Baby Mlk | 3.93 | 13.93 | |
| | Mtrna Mhdrn Baby Mlk | 3.49 | 18.56 | |
| | Aptamil Lactose Free Milk | 3.15 | 15.38 | |
| | Nanny Care Baby Milk | 1.84 | 21.11 | |
| | Cow+Gate Nutrprm 2 B/Mlk | 1.58 | 4.80 | |
| | *Total* | 100 | 14.0 | |

*Notes: Kantar data October 2016 - February 2020. Brands are defined using Kantar definitions and aggregate over products of different sizes within the same brand. Some products are only purchased in powderd formula so that we do not have prices for these in ready-to-drink form.*

## B.2 Baby meals, finger food, drinks

Table B.2: *Parent companies of commercial baby food and drink products*

| Product type | Parent company | Expenditure share (%) | Average price (£) per 100g/ml |
|---|---|---|---|
| Baby meals | Danone Nutricia ELN | 24.8 | 0.5 |
| | Ellas Kitchen | 18.4 | 1.0 |
| | H.J.Heinz Company | 16.2 | 0.6 |
| | Aldi Stores Ltd | 11.0 | 0.4 |
| | Hipp Nutrition | 6.5 | 0.6 |
| | Little Dish | 6.1 | 1.1 |
| | Pro Pak | 4.7 | 1.0 |
| | Asda Group Plc | 3.2 | 0.5 |
| | Organix Brands Plc | 1.3 | 1.0 |
| | Nestle S.A. | 1.2 | 0.7 |
| | J Sainsbury PLC | 1.1 | 0.7 |
| | Lidl UK GMBH | 1.0 | 0.5 |
| | FoodNew Co | 0.9 | 1.1 |
| | For Aisha Ltd | 0.8 | 1.0 |
| | Babylicious Ltd | 0.5 | 1.0 |
| | Tesco PLC | 0.4 | 0.5 |
| | Bebivita | 0.4 | 0.3 |
| | The Boots Company PLC | 0.4 | 1.1 |
| | Babease Ltd | 0.3 | 1.1 |
| | Healthy Kids Limited | 0.3 | 0.7 |
| | Sunny Fields Entrprse Ltd | 0.1 | 1.2 |
| | Leche Pascual SA | 0.1 | 1.3 |
| | Goodness Gracious Foods | 0.1 | 0.7 |
| | Surya Rice Ltd | 0.1 | 0.9 |
| | Marks and Spencer PLC | 0.1 | 1.0 |
| | Heavenly Tsty Orgncs Ltd | 0.1 | 0.9 |
| | Yeo Valley Farms Ltd | 0.0 | 0.4 |
| | Holle Baby Food GmbH | 0.0 | 0.6 |
| | Mia+Ben Organic | 0.0 | 1.5 |
| | Bledina SA | 0.0 | 1.0 |
| | Buxton Foods Limited | 0.0 | 0.4 |
| | Beech Nut Nutrition Corp | 0.0 | 0.6 |
| Baby finger foods | Organix Brands Plc | 35.7 | 2.3 |
| | Babylicious Ltd | 22.4 | 5.5 |
| | Ellas Kitchen | 12.6 | 3.0 |
| | H.J.Heinz Company | 10.0 | 1.0 |
| | Aldi Stores Ltd | 5.1 | 1.5 |
| | Bear | 4.9 | 2.3 |
| | Tesco PLC | 1.8 | 1.8 |
| | Pro Pak | 1.5 | 1.4 |
| | Asda Group Plc | 1.5 | 3.8 |
| | Healthy Kids Limited | 1.2 | 2.7 |
| | Danone Nutricia ELN | 0.8 | 2.0 |
| | Lidl UK GMBH | 0.6 | 1.9 |
| | Unilever UK | 0.5 | 2.9 |
| | Heavenly Tsty Orgncs Ltd | 0.3 | 3.9 |
| | Lightbody Ventures Uk Ltd | 0.3 | 1.5 |
| | J Sainsbury PLC | 0.2 | 2.9 |
| | Bickiepegs Ltd | 0.2 | 4.7 |
| | The Boots Company PLC | 0.1 | 2.0 |
| | Stream Foods | 0.1 | 5.3 |
| | Sunny Fields Entrprse Ltd | 0.0 | 4.7 |
| | Bebivita | 0.0 | 0.8 |
| | FoodNew Co | 0.0 | 4.0 |
| | B.S.N. Group | 0.0 | 0.3 |
| | Pur Uk Ltd | 0.0 | 0.9 |
| Baby drinks | H.J.Heinz Company | 62.9 | 0.3 |
| | Aldi Stores Ltd | 18.7 | 0.2 |
| | Lidl UK GMBH | 12.4 | 0.2 |
| | Natural Immune Prods Ltd | 2.1 | 0.5 |
| | Bebivita | 1.4 | 0.2 |
| | Hipp Nutrition | 1.3 | 0.3 |
| | Nestle S.A. | 0.8 | 0.5 |
| | Buxton Foods Limited | 0.4 | 0.5 |

*Notes: Kantar data October 2016 - February 2020. Parent companies are defined using Kantar definitions and aggregate over brands owned by the same parent company.*

Table B.3: *Parent companies of commercial baby food and drink products*

| Product type | Parent company | Expenditure share (%) | Average price (£) per 100g/ml |
|---|---|---|---|
| Baby meals | Danone Nutricia ELN | 24.8 | 0.5 |
| | Ellas Kitchen | 18.4 | 1.0 |
| | H.J.Heinz Company | 16.2 | 0.6 |
| | Aldi Stores Ltd | 11.0 | 0.4 |
| | Hipp Nutrition | 6.5 | 0.6 |
| | Little Dish | 6.1 | 1.1 |
| | Pro Pak | 4.7 | 1.0 |
| | Asda Group Plc | 3.2 | 0.5 |
| | Organix Brands Plc | 1.3 | 1.0 |
| | Nestle S.A. | 1.2 | 0.7 |
| | J Sainsbury PLC | 1.1 | 0.7 |
| | Lidl UK GMBH | 1.0 | 0.5 |
| | FoodNew Co | 0.9 | 1.1 |
| | For Aisha Ltd | 0.8 | 1.0 |
| | Babylicious Ltd | 0.5 | 1.0 |
| | Tesco PLC | 0.4 | 0.5 |
| | Bebivita | 0.4 | 0.3 |
| | The Boots Company PLC | 0.4 | 1.1 |
| | Babease Ltd | 0.3 | 1.1 |
| | Healthy Kids Limited | 0.3 | 0.7 |
| | Sunny Fields Entrprse Ltd | 0.1 | 1.2 |
| | Leche Pascual SA | 0.1 | 1.3 |
| | Goodness Gracious Foods | 0.1 | 0.7 |
| | Surya Rice Ltd | 0.1 | 0.9 |
| | Marks and Spencer PLC | 0.1 | 1.0 |
| | Heavenly Tsty Orgncs Ltd | 0.1 | 0.9 |
| | Yeo Valley Farms Ltd | 0.0 | 0.4 |
| | Holle Baby Food GmbH | 0.0 | 0.6 |
| | Mia+Ben Organic | 0.0 | 1.5 |
| | Bledina SA | 0.0 | 1.0 |
| | Buxton Foods Limited | 0.0 | 0.4 |
| | Beech Nut Nutrition Corp | 0.0 | 0.6 |
| Baby finger foods | Organix Brands Plc | 35.7 | 2.3 |
| | Babylicious Ltd | 22.4 | 5.5 |
| | Ellas Kitchen | 12.6 | 3.0 |
| | H.J.Heinz Company | 10.0 | 1.0 |
| | Aldi Stores Ltd | 5.1 | 1.5 |
| | Bear | 4.9 | 2.3 |
| | Tesco PLC | 1.8 | 1.8 |
| | Pro Pak | 1.5 | 1.4 |
| | Asda Group Plc | 1.5 | 3.8 |
| | Healthy Kids Limited | 1.2 | 2.7 |
| | Danone Nutricia ELN | 0.8 | 2.0 |
| | Lidl UK GMBH | 0.6 | 1.9 |
| | Unilever UK | 0.5 | 2.9 |
| | Heavenly Tsty Orgncs Ltd | 0.3 | 3.9 |
| | Lightbody Ventures Uk Ltd | 0.3 | 1.5 |
| | J Sainsbury PLC | 0.2 | 2.9 |
| | Bickiepegs Ltd | 0.2 | 4.7 |
| | The Boots Company PLC | 0.1 | 2.0 |
| | Stream Foods | 0.1 | 5.3 |
| | Sunny Fields Entrprse Ltd | 0.0 | 4.7 |
| | Bebivita | 0.0 | 0.8 |
| | FoodNew Co | 0.0 | 4.0 |
| | B.S.N. Group | 0.0 | 0.3 |
| | Pur Uk Ltd | 0.0 | 0.9 |
| Baby drinks | H.J.Heinz Company | 62.9 | 0.3 |
| | Aldi Stores Ltd | 18.7 | 0.2 |
| | Lidl UK GMBH | 12.4 | 0.2 |
| | Natural Immune Prods Ltd | 2.1 | 0.5 |
| | Bebivita | 1.4 | 0.2 |
| | Hipp Nutrition | 1.3 | 0.3 |
| | Nestle S.A. | 0.8 | 0.5 |
| | Buxton Foods Limited | 0.4 | 0.5 |

*Notes: Kantar data October 2016 - February 2020. Parent companies are defined using Kantar definitions and aggregate over brands owned by the same parent company.*

# C Appendix - Who purchases (or not) and how much

## C.1 Household demographics

Table C.1 shows household demographic information by households type, i.e. households with a child age 0-36 months that purchase (or not) formula and/or baby food or drinks, and households that purchase such products but do not have a child age 0-36 months.

First comparing household demographics of those with a 0-36 months old that are observed purchasing (Column (1)) to those that do not (Column (2)), we find that those purchasing are on average more likely to be unskilled (19% versus 24%), more likely to work over 30 hours (46% versus 40%), less likely to be obese (34% versus 38%) and on average older (24% have a main shopper under 30 compared to 32% for those not observed purchasing).

Moving to comparing households that purchase with a child 0-36 months old (Column (1)) to those purchasing without a child in this age bracket (Column (3)), we find that those with a child are more likely to be highly skilled (25% versus 16%), less likely to be white (78% versus 87%), more likely to work more than 30 hours (46% versus 37%), and less likely to be retired (1% versus 25%), and therefore also younger (5% 51+ compared to 57%).

Table C.1: *Characteristics of household types*

| | Share of households | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| Household type | Includes child 0-36, buys formlula, baby food and drinks | Includes child 0-36, does not buy formula, buy baby food and drinks | Does not include child 0-36, buys formula, baby food and drinks |
| All | 100.00 | 100.00 | 100.00 |
| Highly skilled | 25.03 | 21.21 | 18.58 |
| Semi skilled | 55.99 | 54.75 | 57.12 |
| Unskilled | 18.98 | 24.04 | 24.29 |
| White | 78.03 | 77.70 | 86.73 |
| Asian | 7.84 | 8.41 | 3.60 |
| Black | 2.97 | 3.81 | 2.31 |
| Other | 11.16 | 10.08 | 7.36 |
| 0 Unknown | | | 0.03 |
| 1 Over 30 hours | 45.89 | 39.74 | 37.20 |
| 2 8-29 hours | 29.53 | 29.70 | 20.51 |
| 3 Under 8 hours | 2.04 | 2.65 | 1.86 |
| 4 Unemployed | 3.60 | 4.82 | 2.32 |
| 6 Retired | 0.95 | 0.87 | 24.69 |
| 11 Full time education | 1.34 | 1.45 | 0.47 |
| 12 Not working | 16.64 | 20.78 | 12.91 |
| 1 Underweight | 1.95 | 2.47 | 1.73 |
| 2 Normal | 37.36 | 33.68 | 31.77 |
| 3 Overweight | 27.13 | 25.96 | 29.15 |
| 4 Obese | 33.56 | 37.89 | 37.35 |
| 0 Unknown | 11.25 | 9.10 | 17.57 |
| 1 0 - 9,999 | 3.51 | 5.47 | 5.55 |
| 2 10,000 - 19,999 | 12.07 | 15.41 | 18.75 |
| 3 20,000 - 29,999 | 16.66 | 20.70 | 18.78 |
| 4 30,000 - 39,999 | 16.66 | 18.38 | 13.86 |
| 5 40,000 - 49,999 | 14.56 | 11.49 | 10.24 |
| 6 50,000 - 59,999 | 10.40 | 7.40 | 6.49 |
| 7 60,000 - 69,999 | 6.22 | 5.04 | 3.68 |
| 8 70,000 + | 8.67 | 7.00 | 5.09 |
| Under 25 | 3.16 | 5.77 | 0.70 |
| 25-30 | 21.00 | 26.43 | 3.99 |
| 31-40 | 56.62 | 50.29 | 14.92 |
| 41-50 | 14.63 | 14.14 | 23.85 |
| 51+ | 4.59 | 3.37 | 56.54 |
| *Number of households* | *5,608* | 2510 | *5,686* |

*Notes:Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

## C.2 Households with a 0-36 months old and a 3-5 year-old

Table C.2 shows the share of households that have a 0-36 months old *and* a 3-5 year old child (Column 1) and those that do have a 0-36 months old but no 3-5 year old (Column (2)), that purchase formula and/or baby food or drinks. We see that the shares are very consistent, whether the 0-36 months old lives in a households with, or without an older child.

Table C.2: *Share of households purchasing (or not) by whether a 3-5 year-old is in the household*

| | With sibling | Without sibling |
|---|---|---|
| Never buys formula or baby food/drinks | 24.1 | 26.6 |
| Never buys formula but does buy baby food/drinks | 31.0 | 29.8 |
| Buys formula but never buys baby food/drinks | 5.3 | 5.7 |
| Buys both formula and baby food/drinks | 39.6 | 37.9 |

*Notes: Kantar data October 2016 - February 2020. Parent companies are defined using Kantar definitions and aggregate over brands owned by the same parent company.*

## C.3 Formula purchases by demographics

Table C.3: *Statistical differences by month - SES*

Share of households purchasing formula:

| | (1) High Sk. | (2) Unskilled | (3) P |
|---|---|---|---|
| 0-36 months | 0.07 | 0.08 | 0.238 |
| Age 0 | 0.04 | 0.05 | 0.106 |
| Age 1 | 0.24 | 0.29 | 0.215 |
| Age 2 | 0.32 | 0.45 | 0.001*** |
| Age 3 | 0.30 | 0.42 | 0.002** |
| Age 4 | 0.35 | 0.42 | 0.049* |
| Age 5 | 0.37 | 0.43 | 0.103 |
| Age 6 | 0.37 | 0.43 | 0.061 |
| Age 7 | 0.43 | 0.42 | 0.897 |
| Age 8 | 0.44 | 0.44 | 0.915 |
| Age 9 | 0.46 | 0.42 | 0.185 |
| Age 10 | 0.47 | 0.44 | 0.515 |
| Age 11 | 0.44 | 0.39 | 0.080 |
| Age 12 | 0.41 | 0.37 | 0.183 |
| Age 13 | 0.31 | 0.24 | 0.013* |
| Age 14 | 0.21 | 0.20 | 0.696 |
| Age 15 | 0.17 | 0.15 | 0.364 |
| Age 16 | 0.16 | 0.15 | 0.727 |
| Age 17 | 0.15 | 0.15 | 0.863 |
| Age 18 | 0.11 | 0.13 | 0.391 |
| Age 19 | 0.11 | 0.12 | 0.747 |
| Age 20 | 0.10 | 0.14 | 0.067 |
| Age 21 | 0.08 | 0.12 | 0.020* |
| Age 22 | 0.09 | 0.11 | 0.241 |
| Age 23 | 0.09 | 0.12 | 0.106 |
| Age 24 | 0.09 | 0.11 | 0.193 |
| Age 25 | 0.08 | 0.09 | 0.691 |
| Age 26 | 0.08 | 0.09 | 0.623 |
| Age 27 | 0.07 | 0.09 | 0.291 |
| Age 28 | 0.06 | 0.09 | 0.103 |
| Age 29 | 0.05 | 0.08 | 0.012* |
| Age 30 | 0.05 | 0.08 | 0.023* |
| Age 31 | 0.05 | 0.06 | 0.515 |
| Age 32 | 0.04 | 0.07 | 0.115 |
| Age 33 | 0.05 | 0.05 | 0.688 |
| Age 34 | 0.05 | 0.05 | 0.677 |
| Age 35 | 0.04 | 0.05 | 0.522 |
| Age 36 | 0.04 | 0.03 | 0.345 |
| Observations | 22577 | 15513 | 38090 |

Amount (ml) of formula purchased:

| | (1) High Sk. | (2) Unskilled | (3) P |
|---|---|---|---|
| 0-36 months | 30.00 | 29.03 | 0.514 |
| 0-36 months | 16.97 | 18.23 | 0.223 |
| 0-36 months | 14.71 | 16.06 | 0.135 |
| 0-36 months | 66.81 | 71.00 | 0.044* |
| Age 0 | 7.27 | 10.58 | 0.148 |
| Age 1 | 62.42 | 61.89 | 0.967 |
| Age 2 | 145.49 | 172.08 | 0.328 |
| Age 3 | 153.28 | 172.99 | 0.450 |
| Age 4 | 158.75 | 181.53 | 0.312 |
| Age 5 | 190.50 | 176.14 | 0.509 |
| Age 6 | 199.98 | 194.68 | 0.817 |
| Age 7 | 193.19 | 189.23 | 0.853 |
| Age 8 | 203.79 | 198.76 | 0.807 |
| Age 9 | 197.96 | 182.64 | 0.441 |
| Age 10 | 186.56 | 185.53 | 0.954 |
| Age 11 | 175.24 | 163.80 | 0.498 |
| Age 12 | 138.23 | 142.88 | 0.754 |
| Age 13 | 85.10 | 74.82 | 0.364 |
| Age 14 | 61.59 | 58.26 | 0.735 |
| Age 15 | 55.97 | 43.74 | 0.197 |
| Age 16 | 44.75 | 43.19 | 0.858 |
| Age 17 | 44.37 | 40.64 | 0.686 |
| Age 18 | 32.84 | 42.89 | 0.214 |
| Age 19 | 37.49 | 32.49 | 0.576 |
| Age 20 | 32.41 | 35.75 | 0.692 |
| Age 21 | 22.94 | 39.18 | 0.027* |
| Age 22 | 27.26 | 32.64 | 0.476 |
| Age 23 | 25.84 | 37.91 | 0.104 |
| Age 24 | 21.12 | 30.59 | 0.135 |
| Age 25 | 19.77 | 39.57 | 0.025* |
| Age 26 | 18.79 | 29.85 | 0.094 |
| Age 27 | 19.55 | 23.63 | 0.515 |
| Age 28 | 16.18 | 30.28 | 0.028* |
| Age 29 | 14.84 | 28.20 | 0.038* |
| Age 30 | 14.90 | 21.03 | 0.287 |
| Age 31 | 14.57 | 16.74 | 0.704 |
| Age 32 | 16.43 | 13.94 | 0.678 |
| Age 33 | 12.58 | 18.07 | 0.308 |
| Age 34 | 13.51 | 14.70 | 0.812 |
| Age 35 | 11.84 | 15.50 | 0.521 |
| Age 36 | 15.80 | 8.86 | 0.215 |
| Observations | 22577 | 15513 | 38090 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

By formula type - infant formula:

Table C.4: *Statistical differences by month - SES, infant formula*

Share of households purchasing infant formula:

| | (1) High Sk. | (2) Unskilled | (3) P |
|---|---|---|---|
| 0-36 months | 0.07 | 0.08 | 0.238 |
| Age 0 | 0.03 | 0.04 | 0.189 |
| Age 1 | 0.23 | 0.27 | 0.248 |
| Age 2 | 0.30 | 0.40 | 0.009** |
| Age 3 | 0.28 | 0.36 | 0.022* |
| Age 4 | 0.31 | 0.33 | 0.574 |
| Age 5 | 0.31 | 0.33 | 0.674 |
| Age 6 | 0.31 | 0.34 | 0.430 |
| Age 7 | 0.28 | 0.27 | 0.622 |
| Age 8 | 0.21 | 0.17 | 0.081 |
| Age 9 | 0.20 | 0.14 | 0.012* |
| Age 10 | 0.17 | 0.16 | 0.502 |
| Age 11 | 0.16 | 0.13 | 0.107 |
| Age 12 | 0.13 | 0.11 | 0.238 |
| Age 13 | 0.06 | 0.05 | 0.459 |
| Age 14 | 0.03 | 0.03 | 0.707 |
| Age 15 | 0.02 | 0.02 | 0.731 |
| Age 16 | 0.01 | 0.02 | 0.660 |
| Age 17 | 0.01 | 0.01 | 0.706 |
| Age 18 | 0.01 | 0.02 | 0.214 |
| Age 19 | 0.01 | 0.01 | 0.884 |
| Age 20 | 0.01 | 0.00 | 0.370 |
| Age 21 | 0.00 | 0.00 | 0.413 |
| Age 22 | 0.00 | 0.00 | 0.226 |
| Age 23 | 0.00 | 0.01 | 0.347 |
| Age 24 | 0.00 | 0.01 | 0.041* |
| Age 25 | 0.00 | 0.01 | 0.079 |
| Age 26 | 0.00 | 0.01 | 0.062 |
| Age 27 | 0.00 | 0.01 | 0.355 |
| Age 28 | 0.00 | 0.01 | 0.064 |
| Age 29 | 0.00 | 0.00 | 0.340 |
| Age 30 | 0.00 | 0.00 | 0.245 |
| Age 31 | 0.00 | 0.00 | 0.086 |
| Age 32 | 0.00 | 0.00 | 0.798 |
| Age 33 | 0.00 | 0.00 | 0.695 |
| Age 34 | 0.00 | 0.00 | 0.791 |
| Age 35 | 0.01 | 0.00 | 0.150 |
| Age 36 | 0.00 | 0.00 | 0.232 |
| Observations | 22577 | 15513 | 38090 |

Amount (ml) of infant formula purchased:

| | (1) High Sk. | (2) Unskilled | (3) P |
|---|---|---|---|
| 0-36 months | 30.00 | 29.03 | 0.514 |
| Age 0 | 4.14 | 5.92 | 0.188 |
| Age 1 | 59.23 | 51.54 | 0.514 |
| Age 2 | 138.99 | 151.83 | 0.628 |
| Age 3 | 134.69 | 146.45 | 0.635 |
| Age 4 | 140.05 | 141.97 | 0.926 |
| Age 5 | 158.76 | 134.06 | 0.218 |
| Age 6 | 159.90 | 150.28 | 0.645 |
| Age 7 | 122.61 | 113.70 | 0.622 |
| Age 8 | 96.38 | 70.71 | 0.091 |
| Age 9 | 80.30 | 50.96 | 0.027* |
| Age 10 | 67.06 | 57.71 | 0.427 |
| Age 11 | 55.90 | 51.11 | 0.648 |
| Age 12 | 36.58 | 38.21 | 0.830 |
| Age 13 | 14.45 | 14.02 | 0.923 |
| Age 14 | 7.12 | 6.44 | 0.824 |
| Age 15 | 6.77 | 5.76 | 0.756 |
| Age 16 | 2.59 | 4.96 | 0.286 |
| Age 17 | 3.50 | 3.84 | 0.877 |
| Age 18 | 1.68 | 5.88 | 0.062 |
| Age 19 | 3.10 | 3.83 | 0.827 |
| Age 20 | 2.65 | 2.33 | 0.900 |
| Age 21 | 0.33 | 0.00 | 0.413 |
| Age 22 | 0.00 | 0.83 | 0.226 |
| Age 23 | 0.30 | 1.80 | 0.151 |
| Age 24 | 0.33 | 3.21 | 0.083 |
| Age 25 | 0.55 | 5.11 | 0.069 |
| Age 26 | 0.28 | 5.01 | 0.032* |
| Age 27 | 1.77 | 1.90 | 0.950 |
| Age 28 | 0.56 | 4.17 | 0.062 |
| Age 29 | 0.86 | 3.41 | 0.282 |
| Age 30 | 1.46 | 0.00 | 0.311 |
| Age 31 | 0.00 | 0.94 | 0.086 |
| Age 32 | 0.65 | 0.87 | 0.803 |
| Age 33 | 0.02 | 0.94 | 0.095 |
| Age 34 | 1.06 | 0.43 | 0.617 |
| Age 35 | 1.00 | 0.00 | 0.257 |
| Age 36 | 0.09 | 0.00 | 0.232 |
| Observations | 22577 | 15513 | 38090 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

By formula type - follow on formula:

Table C.5: *Statistical differences by month - SES, follow on formula*

Share of households purchasing follow on formula:

| | (1) High Sk. | (2) Unskilled | (3) P |
|---|---|---|---|
| 0-36 months | 0.05 | 0.05 | 0.739 |
| Age 0 | 0.00 | 0.01 | 0.464 |
| Age 1 | 0.00 | 0.00 | 0.404 |
| Age 2 | 0.00 | 0.00 | 0.799 |
| Age 3 | 0.00 | 0.00 | 0.217 |
| Age 4 | 0.00 | 0.01 | 0.695 |
| Age 5 | 0.01 | 0.01 | 0.577 |
| Age 6 | 0.03 | 0.04 | 0.257 |
| Age 7 | 0.16 | 0.13 | 0.335 |
| Age 8 | 0.22 | 0.23 | 0.521 |
| Age 9 | 0.25 | 0.23 | 0.418 |
| Age 10 | 0.27 | 0.25 | 0.645 |
| Age 11 | 0.27 | 0.24 | 0.258 |
| Age 12 | 0.25 | 0.22 | 0.412 |
| Age 13 | 0.14 | 0.11 | 0.265 |
| Age 14 | 0.05 | 0.03 | 0.264 |
| Age 15 | 0.03 | 0.02 | 0.339 |
| Age 16 | 0.03 | 0.01 | 0.056 |
| Age 17 | 0.01 | 0.01 | 0.960 |
| Age 18 | 0.01 | 0.01 | 0.355 |
| Age 19 | 0.01 | 0.01 | 0.719 |
| Age 20 | 0.01 | 0.01 | 0.208 |
| Age 21 | 0.00 | 0.01 | 0.185 |
| Age 22 | 0.00 | 0.00 | 0.981 |
| Age 23 | 0.01 | 0.01 | 0.705 |
| Age 24 | 0.01 | 0.01 | 0.895 |
| Age 25 | 0.00 | 0.01 | 0.339 |
| Age 26 | 0.00 | 0.00 | 0.333 |
| Age 27 | 0.00 | 0.01 | 0.150 |
| Age 28 | 0.00 | 0.01 | 0.032* |
| Age 29 | 0.00 | 0.00 | 0.340 |
| Age 30 | 0.00 | 0.01 | 0.369 |
| Age 31 | 0.00 | 0.00 | 0.226 |
| Age 32 | 0.00 | 0.01 | 0.161 |
| Age 33 | 0.00 | 0.00 | 0.782 |
| Age 34 | 0.00 | 0.00 | 0.240 |
| Age 35 | 0.00 | 0.00 | 0.407 |
| Age 36 | 0.00 | 0.00 | 0.232 |
| Observations | 22577 | 15513 | 38090 |

Amount (ml) of follow on formula purchased:

| | (1) High Sk. | (2) Unskilled | (3) P |
|---|---|---|---|
| 0-36 months | 16.97 | 18.23 | 0.223 |
| Age 0 | 1.55 | 2.67 | 0.391 |
| Age 1 | 0.57 | 0.00 | 0.404 |
| Age 2 | 0.99 | 0.67 | 0.805 |
| Age 3 | 0.00 | 0.05 | 0.217 |
| Age 4 | 0.90 | 6.71 | 0.282 |
| Age 5 | 1.41 | 3.73 | 0.206 |
| Age 6 | 12.16 | 12.40 | 0.967 |
| Age 7 | 52.83 | 51.10 | 0.874 |
| Age 8 | 88.39 | 101.53 | 0.358 |
| Age 9 | 100.08 | 102.36 | 0.879 |
| Age 10 | 107.18 | 109.21 | 0.890 |
| Age 11 | 105.80 | 94.75 | 0.426 |
| Age 12 | 83.49 | 86.13 | 0.832 |
| Age 13 | 36.70 | 28.51 | 0.268 |
| Age 14 | 12.76 | 12.16 | 0.891 |
| Age 15 | 6.87 | 4.77 | 0.439 |
| Age 16 | 4.75 | 3.45 | 0.587 |
| Age 17 | 1.83 | 2.10 | 0.840 |
| Age 18 | 2.28 | 0.55 | 0.129 |
| Age 19 | 1.36 | 1.49 | 0.896 |
| Age 20 | 2.08 | 3.32 | 0.535 |
| Age 21 | 0.60 | 4.10 | 0.075 |
| Age 22 | 1.03 | 3.02 | 0.337 |
| Age 23 | 2.52 | 2.05 | 0.801 |
| Age 24 | 2.68 | 1.99 | 0.716 |
| Age 25 | 0.90 | 4.02 | 0.168 |
| Age 26 | 0.33 | 1.90 | 0.278 |
| Age 27 | 0.33 | 1.98 | 0.141 |
| Age 28 | 0.00 | 2.08 | 0.093 |
| Age 29 | 1.07 | 1.05 | 0.991 |
| Age 30 | 1.07 | 2.95 | 0.316 |
| Age 31 | 0.00 | 0.42 | 0.226 |
| Age 32 | 0.65 | 1.92 | 0.353 |
| Age 33 | 0.25 | 0.37 | 0.782 |
| Age 34 | 0.68 | 0.00 | 0.343 |
| Age 35 | 0.09 | 0.00 | 0.407 |
| Age 36 | 0.74 | 0.00 | 0.312 |
| Observations | 22577 | 15513 | 38090 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

By formula type - growing up formula:

Table C.6: *Statistical differences by month - SES, growing up formula*

Share of households purchasing growing up formula:

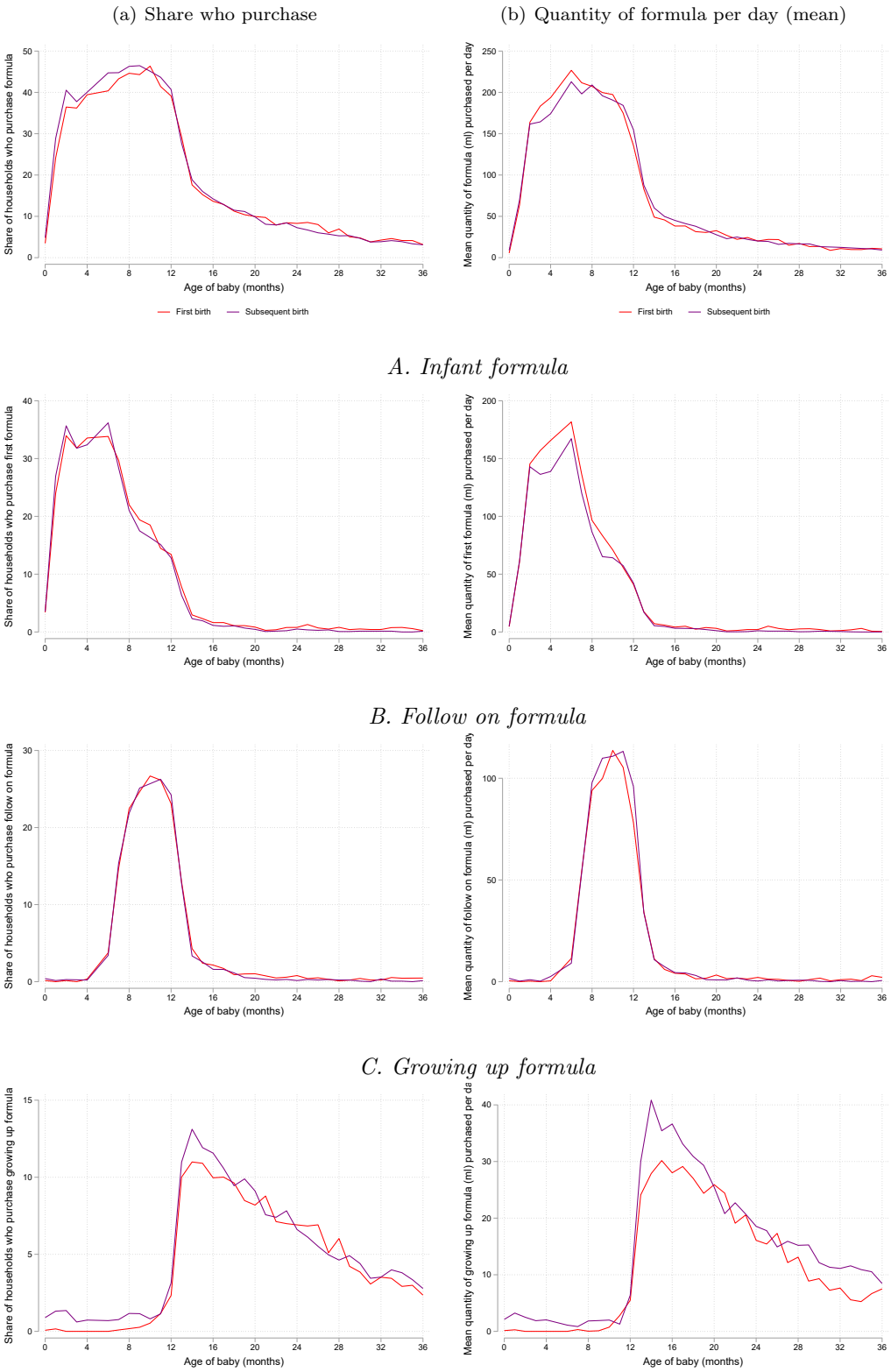
| | (1) High Sk. | (2) Unskilled | (3) P |
|---|---|---|---|
| 0-36 months | 0.05 | 0.06 | 0.003** |
| Age 0 | 0.00 | 0.01 | 0.433 |
| Age 1 | 0.00 | 0.02 | 0.016* |
| Age 2 | 0.00 | 0.02 | 0.076 |
| Age 3 | 0.00 | 0.01 | 0.013* |
| Age 4 | 0.00 | 0.01 | 0.035* |
| Age 5 | 0.00 | 0.02 | 0.003** |
| Age 6 | 0.00 | 0.01 | 0.183 |
| Age 7 | 0.01 | 0.01 | 0.701 |
| Age 8 | 0.01 | 0.01 | 0.411 |
| Age 9 | 0.01 | 0.01 | 0.975 |
| Age 10 | 0.00 | 0.01 | 0.411 |
| Age 11 | 0.01 | 0.01 | 0.830 |
| Age 12 | 0.03 | 0.02 | 0.192 |
| Age 13 | 0.11 | 0.10 | 0.467 |
| Age 14 | 0.14 | 0.13 | 0.782 |
| Age 15 | 0.13 | 0.11 | 0.381 |
| Age 16 | 0.12 | 0.12 | 0.880 |
| Age 17 | 0.12 | 0.12 | 0.817 |
| Age 18 | 0.09 | 0.11 | 0.547 |
| Age 19 | 0.09 | 0.10 | 0.542 |
| Age 20 | 0.08 | 0.12 | 0.053 |
| Age 21 | 0.07 | 0.11 | 0.026* |
| Age 22 | 0.08 | 0.10 | 0.340 |
| Age 23 | 0.08 | 0.11 | 0.163 |
| Age 24 | 0.08 | 0.10 | 0.271 |
| Age 25 | 0.08 | 0.08 | 0.939 |
| Age 26 | 0.08 | 0.08 | 0.906 |
| Age 27 | 0.06 | 0.07 | 0.729 |
| Age 28 | 0.06 | 0.07 | 0.507 |
| Age 29 | 0.04 | 0.07 | 0.045* |
| Age 30 | 0.04 | 0.07 | 0.038* |
| Age 31 | 0.05 | 0.05 | 0.823 |
| Age 32 | 0.04 | 0.05 | 0.307 |
| Age 33 | 0.05 | 0.04 | 0.548 |
| Age 34 | 0.04 | 0.05 | 0.556 |
| Age 35 | 0.03 | 0.05 | 0.306 |
| Age 36 | 0.03 | 0.03 | 0.631 |
| Observations | 22577 | 15513 | 38090 |

Amount (ml) of growing up formula purchased:

| | (1) High Sk. | (2) Unskilled | (3) P |
|---|---|---|---|
| 0-36 months | 14.71 | 16.06 | 0.135 |
| Age 0 | 1.37 | 1.99 | 0.547 |
| Age 1 | 0.00 | 2.20 | 0.025* |
| Age 2 | 0.27 | 2.06 | 0.143 |
| Age 3 | 0.00 | 4.99 | 0.044* |
| Age 4 | 0.00 | 3.66 | 0.084 |
| Age 5 | 0.00 | 2.31 | 0.015* |
| Age 6 | 0.01 | 1.71 | 0.065 |
| Age 7 | 0.69 | 1.08 | 0.674 |
| Age 8 | 0.58 | 2.12 | 0.187 |
| Age 9 | 1.31 | 0.93 | 0.769 |
| Age 10 | 0.43 | 3.10 | 0.128 |
| Age 11 | 1.28 | 1.18 | 0.940 |
| Age 12 | 5.93 | 4.59 | 0.613 |
| Age 13 | 28.32 | 23.95 | 0.485 |
| Age 14 | 39.25 | 33.42 | 0.460 |
| Age 15 | 39.76 | 29.40 | 0.199 |
| Age 16 | 35.48 | 32.46 | 0.699 |
| Age 17 | 38.14 | 33.02 | 0.564 |
| Age 18 | 27.93 | 34.24 | 0.401 |
| Age 19 | 31.18 | 27.18 | 0.622 |
| Age 20 | 27.03 | 30.10 | 0.686 |
| Age 21 | 21.73 | 34.16 | 0.076 |
| Age 22 | 26.23 | 28.37 | 0.768 |
| Age 23 | 22.73 | 33.41 | 0.134 |
| Age 24 | 18.11 | 25.39 | 0.205 |
| Age 25 | 17.77 | 30.00 | 0.135 |
| Age 26 | 18.18 | 22.08 | 0.494 |
| Age 27 | 17.44 | 18.90 | 0.802 |
| Age 28 | 15.60 | 20.58 | 0.380 |
| Age 29 | 12.63 | 21.57 | 0.115 |
| Age 30 | 12.36 | 15.97 | 0.473 |
| Age 31 | 14.14 | 14.54 | 0.944 |
| Age 32 | 14.17 | 10.31 | 0.469 |
| Age 33 | 12.31 | 14.14 | 0.714 |
| Age 34 | 11.53 | 12.55 | 0.823 |
| Age 35 | 10.41 | 13.77 | 0.532 |
| Age 36 | 14.64 | 7.59 | 0.195 |
| Observations | 22577 | 15513 | 38090 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

Figure C.1: *Purchases of formula, by birth order*




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A.*

*First formula*

Table C.7: *Statistical differences by month - Birth order, any formula*

| Share of households purchasing formula: | | | | Amount (ml) of formula purchased: | | | |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | | (1) | (2) | (3) |
| | 1st born | later-born | P | | 1st born | later-born | P |
| 0-36 months | 0.09 | 0.07 | 0.000*** | 0-36 months | 36.29 | 27.61 | 0.000*** |
| 0-36 months | 0.05 | 0.04 | 0.000*** | 0-36 months | 18.55 | 16.83 | 0.011* |
| 0-36 months | 0.04 | 0.05 | 0.000*** | 0-36 months | 11.49 | 14.46 | 0.000*** |
| 0-36 months | 0.18 | 0.17 | 0.000*** | 0-36 months | 72.95 | 64.90 | 0.000*** |
| Age 0 | 0.03 | 0.05 | 0.008** | Age 0 | 5.53 | 8.86 | 0.009** |
| Age 1 | 0.24 | 0.29 | 0.055 | Age 1 | 63.74 | 69.91 | 0.485 |
| Age 2 | 0.36 | 0.41 | 0.114 | Age 2 | 163.86 | 161.65 | 0.897 |
| Age 3 | 0.36 | 0.38 | 0.524 | Age 3 | 183.37 | 164.32 | 0.270 |
| Age 4 | 0.39 | 0.40 | 0.791 | Age 4 | 193.66 | 174.20 | 0.232 |
| Age 5 | 0.41 | 0.42 | 0.665 | Age 5 | 210.42 | 192.24 | 0.266 |
| Age 6 | 0.40 | 0.45 | 0.038* | Age 6 | 226.70 | 212.87 | 0.402 |
| Age 7 | 0.43 | 0.45 | 0.476 | Age 7 | 211.66 | 198.14 | 0.365 |
| Age 8 | 0.45 | 0.46 | 0.419 | Age 8 | 207.30 | 209.05 | 0.894 |
| Age 9 | 0.44 | 0.46 | 0.294 | Age 9 | 199.81 | 195.91 | 0.757 |
| Age 10 | 0.46 | 0.45 | 0.550 | Age 10 | 197.38 | 190.64 | 0.570 |
| Age 11 | 0.41 | 0.44 | 0.275 | Age 11 | 175.05 | 184.26 | 0.418 |
| Age 12 | 0.39 | 0.41 | 0.437 | Age 12 | 135.60 | 154.76 | 0.046* |
| Age 13 | 0.29 | 0.28 | 0.403 | Age 13 | 82.95 | 87.77 | 0.539 |
| Age 14 | 0.18 | 0.19 | 0.437 | Age 14 | 49.07 | 60.15 | 0.082 |
| Age 15 | 0.15 | 0.16 | 0.602 | Age 15 | 45.62 | 49.83 | 0.487 |
| Age 16 | 0.14 | 0.14 | 0.678 | Age 16 | 38.28 | 45.09 | 0.237 |
| Age 17 | 0.13 | 0.13 | 0.974 | Age 17 | 38.38 | 41.27 | 0.620 |
| Age 18 | 0.11 | 0.11 | 0.861 | Age 18 | 31.51 | 38.02 | 0.209 |
| Age 19 | 0.10 | 0.11 | 0.541 | Age 19 | 30.52 | 32.87 | 0.642 |
| Age 20 | 0.10 | 0.10 | 0.932 | Age 20 | 32.68 | 27.78 | 0.321 |
| Age 21 | 0.10 | 0.08 | 0.159 | Age 21 | 26.97 | 22.94 | 0.337 |
| Age 22 | 0.08 | 0.08 | 0.980 | Age 22 | 22.18 | 24.99 | 0.540 |
| Age 23 | 0.08 | 0.08 | 0.972 | Age 23 | 24.37 | 22.09 | 0.577 |
| Age 24 | 0.08 | 0.07 | 0.351 | Age 24 | 20.23 | 20.14 | 0.981 |
| Age 25 | 0.09 | 0.07 | 0.094 | Age 25 | 22.08 | 19.65 | 0.597 |
| Age 26 | 0.08 | 0.06 | 0.057 | Age 26 | 21.87 | 16.10 | 0.144 |
| Age 27 | 0.06 | 0.06 | 0.748 | Age 27 | 15.06 | 17.34 | 0.528 |
| Age 28 | 0.07 | 0.05 | 0.094 | Age 28 | 17.16 | 16.57 | 0.870 |
| Age 29 | 0.05 | 0.05 | 0.753 | Age 29 | 13.43 | 16.60 | 0.367 |
| Age 30 | 0.05 | 0.05 | 0.906 | Age 30 | 13.69 | 13.33 | 0.914 |
| Age 31 | 0.04 | 0.04 | 0.977 | Age 31 | 8.83 | 12.91 | 0.212 |
| Age 32 | 0.04 | 0.04 | 0.634 | Age 32 | 11.02 | 12.48 | 0.660 |
| Age 33 | 0.05 | 0.04 | 0.563 | Age 33 | 9.83 | 11.81 | 0.502 |
| Age 34 | 0.04 | 0.04 | 0.736 | Age 34 | 9.77 | 11.15 | 0.627 |
| Age 35 | 0.04 | 0.03 | 0.327 | Age 35 | 11.31 | 10.54 | 0.831 |
| Age 36 | 0.03 | 0.03 | 0.943 | Age 36 | 10.70 | 9.23 | 0.636 |
| Observations | 38827 | 48955 | 87782 | Observations | 38827 | 48955 | 87782 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

By formula type - infant formula:

Table C.8: *Statistical differences by month - Birth order, infant formula*

| Share of households purchasing infant formula: | | | |
|---|---|---|---|
| | (1) 1st born | (2) later-born | (3) P |
| 0-36 months | 0.09 | 0.07 | 0.000*** |
| Age 0 | 0.03 | 0.04 | 0.747 |
| Age 1 | 0.24 | 0.27 | 0.219 |
| Age 2 | 0.34 | 0.36 | 0.500 |
| Age 3 | 0.32 | 0.32 | 0.987 |
| Age 4 | 0.34 | 0.32 | 0.594 |
| Age 5 | 0.35 | 0.34 | 0.937 |
| Age 6 | 0.34 | 0.36 | 0.247 |
| Age 7 | 0.30 | 0.28 | 0.494 |
| Age 8 | 0.22 | 0.21 | 0.567 |
| Age 9 | 0.19 | 0.17 | 0.234 |
| Age 10 | 0.19 | 0.16 | 0.166 |
| Age 11 | 0.14 | 0.15 | 0.654 |
| Age 12 | 0.13 | 0.13 | 0.658 |
| Age 13 | 0.08 | 0.06 | 0.176 |
| Age 14 | 0.03 | 0.02 | 0.326 |
| Age 15 | 0.02 | 0.02 | 0.528 |
| Age 16 | 0.02 | 0.01 | 0.315 |
| Age 17 | 0.02 | 0.01 | 0.161 |
| Age 18 | 0.01 | 0.01 | 0.940 |
| Age 19 | 0.01 | 0.01 | 0.273 |
| Age 20 | 0.01 | 0.00 | 0.226 |
| Age 21 | 0.00 | 0.00 | 0.211 |
| Age 22 | 0.00 | 0.00 | 0.251 |
| Age 23 | 0.01 | 0.00 | 0.046* |
| Age 24 | 0.01 | 0.01 | 0.390 |
| Age 25 | 0.01 | 0.00 | 0.009** |
| Age 26 | 0.01 | 0.00 | 0.139 |
| Age 27 | 0.01 | 0.00 | 0.601 |
| Age 28 | 0.01 | 0.00 | 0.004** |
| Age 29 | 0.00 | 0.00 | 0.075 |
| Age 30 | 0.01 | 0.00 | 0.091 |
| Age 31 | 0.00 | 0.00 | 0.172 |
| Age 32 | 0.00 | 0.00 | 0.170 |
| Age 33 | 0.01 | 0.00 | 0.017* |
| Age 34 | 0.01 | 0.00 | 0.001*** |
| Age 35 | 0.01 | 0.00 | 0.004** |
| Age 36 | 0.00 | 0.00 | 0.578 |
| Observations | 38827 | 48955 | 87782 |

| Amount (ml) of infant formula purchased: | | | |
|---|---|---|---|
| | (1) 1st born | (2) later-born | (3) P |
| 0-36 months | 36.29 | 27.61 | 0.000*** |
| Age 0 | 4.63 | 5.01 | 0.659 |
| Age 1 | 60.70 | 61.53 | 0.920 |
| Age 2 | 145.43 | 142.93 | 0.877 |
| Age 3 | 156.97 | 136.36 | 0.210 |
| Age 4 | 165.66 | 138.84 | 0.078 |
| Age 5 | 172.63 | 155.08 | 0.257 |
| Age 6 | 181.76 | 167.21 | 0.344 |
| Age 7 | 136.44 | 120.18 | 0.210 |
| Age 8 | 96.55 | 86.36 | 0.291 |
| Age 9 | 83.39 | 65.16 | 0.033* |
| Age 10 | 71.01 | 64.17 | 0.372 |
| Age 11 | 55.81 | 57.38 | 0.821 |
| Age 12 | 41.11 | 42.38 | 0.812 |
| Age 13 | 17.54 | 17.08 | 0.889 |
| Age 14 | 7.20 | 5.43 | 0.410 |
| Age 15 | 5.91 | 4.78 | 0.545 |
| Age 16 | 4.25 | 3.18 | 0.531 |
| Age 17 | 4.98 | 3.07 | 0.287 |
| Age 18 | 2.39 | 2.93 | 0.668 |
| Age 19 | 3.84 | 2.06 | 0.285 |
| Age 20 | 3.14 | 1.13 | 0.172 |
| Age 21 | 0.90 | 0.15 | 0.210 |
| Age 22 | 1.33 | 0.15 | 0.057 |
| Age 23 | 2.10 | 0.30 | 0.027* |
| Age 24 | 2.04 | 1.06 | 0.355 |
| Age 25 | 5.01 | 0.73 | 0.016* |
| Age 26 | 3.05 | 0.74 | 0.066 |
| Age 27 | 1.98 | 0.72 | 0.242 |
| Age 28 | 2.65 | 0.16 | 0.007** |
| Age 29 | 2.80 | 0.28 | 0.048* |
| Age 30 | 2.09 | 0.68 | 0.168 |
| Age 31 | 0.91 | 0.54 | 0.569 |
| Age 32 | 1.22 | 0.41 | 0.202 |
| Age 33 | 1.88 | 0.12 | 0.049* |
| Age 34 | 3.07 | 0.00 | 0.004** |
| Age 35 | 0.70 | 0.00 | 0.067 |
| Age 36 | 0.44 | 0.05 | 0.222 |
| Observations | 38827 | 48955 | 87782 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

By formula type - follow on formula:

Table C.9: *Statistical differences by month - Birth order, follow on formula*

Share of households purchasing follow on formula:

| | (1) 1st born | (2) later-born | (3) P |
|---|---|---|---|
| 0-36 months | 0.05 | 0.04 | 0.000*** |
| Age 0 | 0.00 | 0.00 | 0.065 |
| Age 1 | 0.00 | 0.00 | 0.342 |
| Age 2 | 0.00 | 0.00 | 0.611 |
| Age 3 | 0.00 | 0.00 | 0.175 |
| Age 4 | 0.00 | 0.00 | 0.595 |
| Age 5 | 0.01 | 0.00 | 0.053 |
| Age 6 | 0.04 | 0.03 | 0.668 |
| Age 7 | 0.15 | 0.15 | 0.653 |
| Age 8 | 0.22 | 0.22 | 0.733 |
| Age 9 | 0.25 | 0.25 | 0.789 |
| Age 10 | 0.27 | 0.26 | 0.582 |
| Age 11 | 0.26 | 0.26 | 0.956 |
| Age 12 | 0.23 | 0.24 | 0.510 |
| Age 13 | 0.13 | 0.13 | 0.848 |
| Age 14 | 0.04 | 0.03 | 0.226 |
| Age 15 | 0.02 | 0.03 | 0.800 |
| Age 16 | 0.02 | 0.02 | 0.311 |
| Age 17 | 0.02 | 0.02 | 0.808 |
| Age 18 | 0.01 | 0.01 | 0.584 |
| Age 19 | 0.01 | 0.01 | 0.176 |
| Age 20 | 0.01 | 0.00 | 0.093 |
| Age 21 | 0.01 | 0.00 | 0.113 |
| Age 22 | 0.00 | 0.00 | 0.277 |
| Age 23 | 0.01 | 0.00 | 0.275 |
| Age 24 | 0.01 | 0.00 | 0.016* |
| Age 25 | 0.00 | 0.00 | 0.650 |
| Age 26 | 0.01 | 0.00 | 0.232 |
| Age 27 | 0.00 | 0.00 | 0.957 |
| Age 28 | 0.00 | 0.00 | 0.494 |
| Age 29 | 0.00 | 0.00 | 0.969 |
| Age 30 | 0.00 | 0.00 | 0.069 |
| Age 31 | 0.00 | 0.00 | 0.079 |
| Age 32 | 0.00 | 0.00 | 0.559 |
| Age 33 | 0.01 | 0.00 | 0.026* |
| Age 34 | 0.00 | 0.00 | 0.051 |
| Age 35 | 0.00 | 0.00 | 0.009** |
| Age 36 | 0.00 | 0.00 | 0.126 |
| Observations | 38827 | 48955 | 87782 |

Amount (ml) of follow on formula purchased:

| | (1) 1st born | (2) later-born | (3) P |
|---|---|---|---|
| 0-36 months | 18.55 | 16.83 | 0.011* |
| Age 0 | 0.44 | 1.61 | 0.060 |
| Age 1 | 0.00 | 0.29 | 0.342 |
| Age 2 | 0.25 | 0.97 | 0.343 |
| Age 3 | 0.00 | 0.25 | 0.307 |
| Age 4 | 0.40 | 2.55 | 0.353 |
| Age 5 | 2.10 | 0.65 | 0.093 |
| Age 6 | 11.43 | 9.08 | 0.433 |
| Age 7 | 54.37 | 53.52 | 0.903 |
| Age 8 | 94.03 | 97.90 | 0.682 |
| Age 9 | 99.85 | 109.85 | 0.308 |
| Age 10 | 113.65 | 110.81 | 0.775 |
| Age 11 | 105.38 | 113.23 | 0.410 |
| Age 12 | 78.11 | 95.91 | 0.028* |
| Age 13 | 34.32 | 33.86 | 0.924 |
| Age 14 | 11.26 | 10.79 | 0.870 |
| Age 15 | 6.02 | 7.38 | 0.531 |
| Age 16 | 4.13 | 4.45 | 0.853 |
| Age 17 | 3.77 | 4.31 | 0.768 |
| Age 18 | 1.40 | 3.08 | 0.155 |
| Age 19 | 1.68 | 1.00 | 0.360 |
| Age 20 | 3.26 | 0.88 | 0.037* |
| Age 21 | 1.49 | 0.85 | 0.466 |
| Age 22 | 1.74 | 1.87 | 0.947 |
| Age 23 | 1.35 | 0.75 | 0.445 |
| Age 24 | 2.08 | 0.31 | 0.027* |
| Age 25 | 1.26 | 0.94 | 0.744 |
| Age 26 | 1.13 | 0.32 | 0.250 |
| Age 27 | 0.58 | 0.64 | 0.915 |
| Age 28 | 0.17 | 0.73 | 0.356 |
| Age 29 | 1.03 | 0.67 | 0.686 |
| Age 30 | 1.75 | 0.14 | 0.045* |
| Age 31 | 0.39 | 0.00 | 0.080 |
| Age 32 | 0.97 | 0.54 | 0.523 |
| Age 33 | 1.23 | 0.10 | 0.021* |
| Age 34 | 0.50 | 0.24 | 0.539 |
| Age 35 | 2.92 | 0.00 | 0.073 |
| Age 36 | 2.14 | 0.59 | 0.224 |
| Observations | 38827 | 48955 | 87782 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

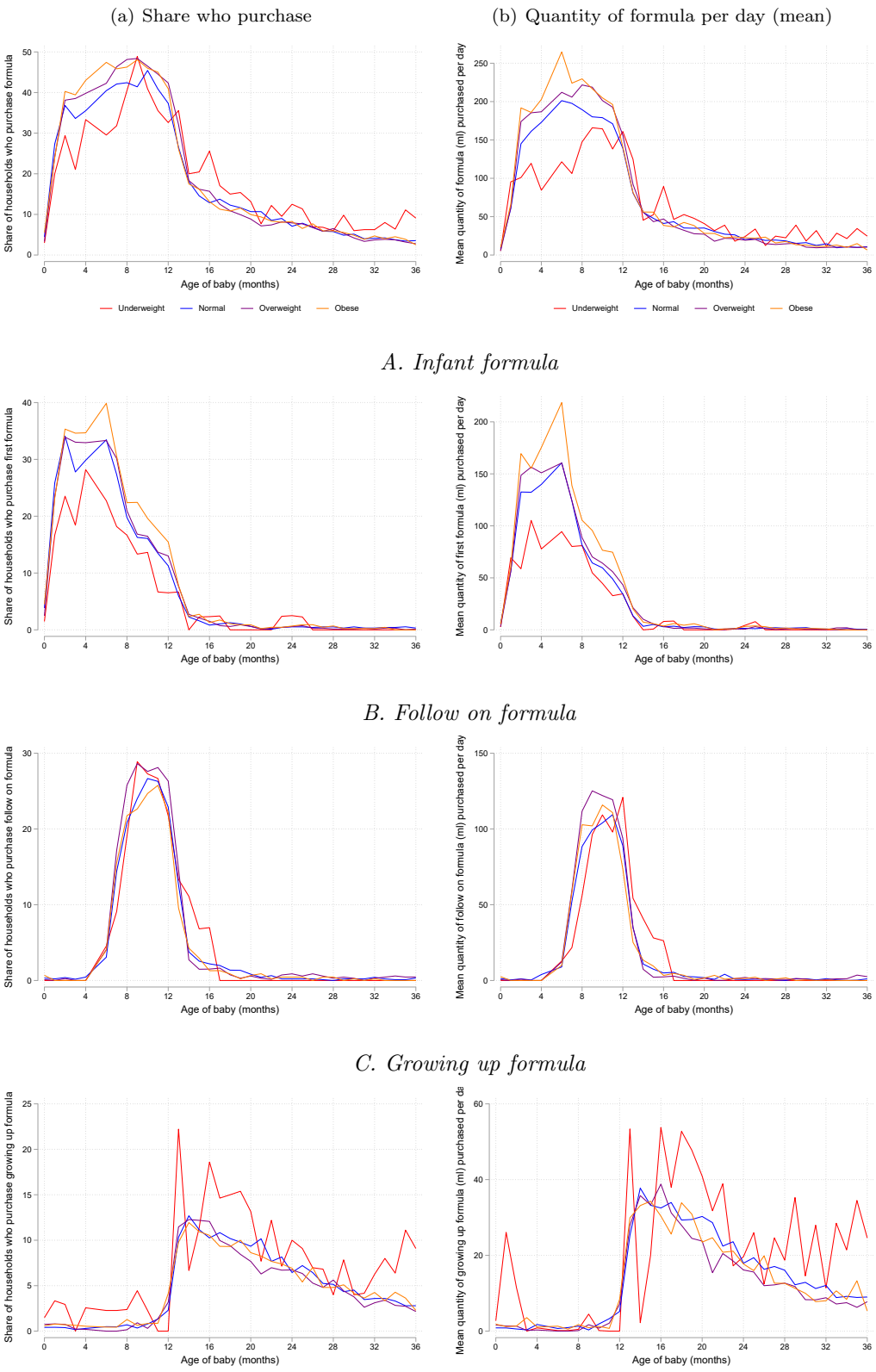
By formula type - growing up formula:

Table C.10: *Statistical differences by month - Birth order, growing up formula*

| Share of households purchasing growing up formula: | | | | Amount (ml) of growing up formula purchased: | | | |
|---|---|---|---|---|---|---|---|
| | (1) 1st born | (2) later-born | (3) P | | (1) 1st born | (2) later-born | (3) P |
| 0-36 months | 0.04 | 0.05 | 0.000*** | 0-36 months | 11.49 | 14.46 | 0.000*** |
| Age 0 | 0.00 | 0.01 | 0.000*** | Age 0 | 0.14 | 2.12 | 0.000*** |
| Age 1 | 0.00 | 0.01 | 0.017* | Age 1 | 0.28 | 3.23 | 0.056 |
| Age 2 | 0.00 | 0.01 | 0.002** | Age 2 | 0.00 | 2.49 | 0.012* |
| Age 3 | 0.00 | 0.01 | 0.032* | Age 3 | 0.00 | 1.89 | 0.082 |
| Age 4 | 0.00 | 0.01 | 0.011* | Age 4 | 0.00 | 2.03 | 0.049* |
| Age 5 | 0.00 | 0.01 | 0.025* | Age 5 | 0.02 | 1.45 | 0.014* |
| Age 6 | 0.00 | 0.01 | 0.006** | Age 6 | 0.00 | 1.10 | 0.024* |
| Age 7 | 0.00 | 0.01 | 0.015* | Age 7 | 0.32 | 0.85 | 0.307 |
| Age 8 | 0.00 | 0.01 | 0.004** | Age 8 | 0.04 | 1.84 | 0.006** |
| Age 9 | 0.00 | 0.01 | 0.012* | Age 9 | 0.11 | 1.91 | 0.009** |
| Age 10 | 0.01 | 0.01 | 0.410 | Age 10 | 0.75 | 2.00 | 0.200 |
| Age 11 | 0.01 | 0.01 | 0.959 | Age 11 | 2.81 | 1.28 | 0.160 |
| Age 12 | 0.02 | 0.03 | 0.228 | Age 12 | 5.48 | 6.39 | 0.623 |
| Age 13 | 0.10 | 0.11 | 0.442 | Age 13 | 24.10 | 30.00 | 0.177 |
| Age 14 | 0.11 | 0.13 | 0.113 | Age 14 | 27.87 | 40.83 | 0.012* |
| Age 15 | 0.11 | 0.12 | 0.434 | Age 15 | 30.17 | 35.42 | 0.294 |
| Age 16 | 0.10 | 0.12 | 0.205 | Age 16 | 28.00 | 36.64 | 0.093 |
| Age 17 | 0.10 | 0.11 | 0.644 | Age 17 | 29.12 | 33.11 | 0.444 |
| Age 18 | 0.10 | 0.09 | 0.881 | Age 18 | 27.02 | 30.90 | 0.413 |
| Age 19 | 0.08 | 0.10 | 0.234 | Age 19 | 24.39 | 29.32 | 0.294 |
| Age 20 | 0.08 | 0.09 | 0.427 | Age 20 | 25.92 | 25.48 | 0.922 |
| Age 21 | 0.09 | 0.08 | 0.278 | Age 21 | 24.42 | 20.80 | 0.360 |
| Age 22 | 0.07 | 0.07 | 0.794 | Age 22 | 19.11 | 22.71 | 0.385 |
| Age 23 | 0.07 | 0.08 | 0.443 | Age 23 | 20.56 | 20.72 | 0.969 |
| Age 24 | 0.07 | 0.07 | 0.771 | Age 24 | 16.08 | 18.55 | 0.478 |
| Age 25 | 0.07 | 0.06 | 0.481 | Age 25 | 15.43 | 17.79 | 0.567 |
| Age 26 | 0.07 | 0.06 | 0.160 | Age 26 | 17.31 | 14.91 | 0.502 |
| Age 27 | 0.05 | 0.05 | 0.884 | Age 27 | 12.15 | 15.91 | 0.270 |
| Age 28 | 0.06 | 0.05 | 0.131 | Age 28 | 13.11 | 15.20 | 0.522 |
| Age 29 | 0.04 | 0.05 | 0.433 | Age 29 | 8.88 | 15.27 | 0.040* |
| Age 30 | 0.04 | 0.04 | 0.508 | Age 30 | 9.31 | 12.13 | 0.345 |
| Age 31 | 0.03 | 0.03 | 0.617 | Age 31 | 7.26 | 11.33 | 0.164 |
| Age 32 | 0.04 | 0.04 | 0.992 | Age 32 | 7.65 | 11.12 | 0.230 |
| Age 33 | 0.03 | 0.04 | 0.492 | Age 33 | 5.58 | 11.58 | 0.021* |
| Age 34 | 0.03 | 0.04 | 0.254 | Age 34 | 5.26 | 10.91 | 0.025* |
| Age 35 | 0.03 | 0.03 | 0.631 | Age 35 | 6.66 | 10.54 | 0.213 |
| Age 36 | 0.02 | 0.03 | 0.532 | Age 36 | 7.51 | 8.46 | 0.733 |
| Observations | 38827 | 48955 | 87782 | Observations | 38827 | 48955 | 87782 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

Figure C.2: *Purchases of formula over first 6 months, by BMI status of main shopper*




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A.*

Table C.11: *Statistical differences by month - BMI, any formula*

Share of households purchasing formula:

| | (1) Underw/Norm | (2) Obese | (3) P |
|---|---|---|---|
| 0-36 months | 0.07 | 0.09 | 0.000*** |
| 0-36 months | 0.04 | 0.05 | 0.843 |
| 0-36 months | 0.05 | 0.05 | 0.148 |
| 0-36 months | 0.17 | 0.19 | 0.000*** |
| Age 0 | 0.04 | 0.06 | 0.119 |
| Age 1 | 0.27 | 0.24 | 0.379 |
| Age 2 | 0.36 | 0.40 | 0.270 |
| Age 3 | 0.33 | 0.39 | 0.047* |
| Age 4 | 0.35 | 0.43 | 0.014* |
| Age 5 | 0.36 | 0.44 | 0.009** |
| Age 6 | 0.40 | 0.47 | 0.009** |
| Age 7 | 0.42 | 0.46 | 0.134 |
| Age 8 | 0.42 | 0.46 | 0.164 |
| Age 9 | 0.42 | 0.48 | 0.025* |
| Age 10 | 0.45 | 0.46 | 0.787 |
| Age 11 | 0.41 | 0.45 | 0.116 |
| Age 12 | 0.37 | 0.41 | 0.165 |
| Age 13 | 0.27 | 0.26 | 0.733 |
| Age 14 | 0.18 | 0.17 | 0.756 |
| Age 15 | 0.15 | 0.16 | 0.490 |
| Age 16 | 0.13 | 0.13 | 0.877 |
| Age 17 | 0.14 | 0.11 | 0.170 |
| Age 18 | 0.12 | 0.11 | 0.388 |
| Age 19 | 0.12 | 0.12 | 0.901 |
| Age 20 | 0.11 | 0.10 | 0.636 |
| Age 21 | 0.11 | 0.09 | 0.490 |
| Age 22 | 0.09 | 0.08 | 0.837 |
| Age 23 | 0.09 | 0.08 | 0.546 |
| Age 24 | 0.07 | 0.08 | 0.527 |
| Age 25 | 0.08 | 0.07 | 0.332 |
| Age 26 | 0.07 | 0.08 | 0.574 |
| Age 27 | 0.06 | 0.06 | 0.981 |
| Age 28 | 0.06 | 0.06 | 0.905 |
| Age 29 | 0.05 | 0.06 | 0.738 |
| Age 30 | 0.05 | 0.05 | 0.795 |
| Age 31 | 0.04 | 0.04 | 0.831 |
| Age 32 | 0.04 | 0.05 | 0.682 |
| Age 33 | 0.04 | 0.04 | 0.723 |
| Age 34 | 0.04 | 0.05 | 0.572 |
| Age 35 | 0.04 | 0.04 | 0.945 |
| Age 36 | 0.04 | 0.03 | 0.217 |
| Observations | 35708 | 16817 | 52525 |

Amount (ml) of formula purchased:

| | (1) Underw/Norm | (2) Obese | (3) P |
|---|---|---|---|
| 0-36 months | 27.00 | 38.27 | 0.000*** |
| 0-36 months | 16.88 | 18.14 | 0.174 |
| 0-36 months | 14.59 | 13.15 | 0.063 |
| 0-36 months | 63.78 | 76.64 | 0.000*** |
| Age 0 | 8.27 | 10.04 | 0.374 |
| Age 1 | 62.66 | 66.19 | 0.764 |
| Age 2 | 142.31 | 191.79 | 0.027* |
| Age 3 | 158.70 | 185.89 | 0.243 |
| Age 4 | 168.11 | 202.78 | 0.140 |
| Age 5 | 167.39 | 229.11 | 0.009** |
| Age 6 | 197.15 | 264.74 | 0.005** |
| Age 7 | 193.14 | 224.03 | 0.148 |
| Age 8 | 187.55 | 229.63 | 0.016* |
| Age 9 | 179.45 | 216.69 | 0.023* |
| Age 10 | 178.36 | 204.86 | 0.090 |
| Age 11 | 169.49 | 196.21 | 0.090 |
| Age 12 | 140.18 | 141.05 | 0.947 |
| Age 13 | 82.82 | 81.48 | 0.904 |
| Age 14 | 55.21 | 56.06 | 0.924 |
| Age 15 | 48.03 | 55.93 | 0.373 |
| Age 16 | 43.21 | 38.65 | 0.561 |
| Age 17 | 43.56 | 36.62 | 0.400 |
| Age 18 | 35.95 | 42.48 | 0.386 |
| Age 19 | 35.43 | 38.37 | 0.702 |
| Age 20 | 35.43 | 28.23 | 0.331 |
| Age 21 | 30.71 | 28.08 | 0.682 |
| Age 22 | 27.67 | 22.55 | 0.451 |
| Age 23 | 25.92 | 23.62 | 0.698 |
| Age 24 | 20.17 | 22.43 | 0.666 |
| Age 25 | 22.19 | 21.94 | 0.972 |
| Age 26 | 18.73 | 23.29 | 0.429 |
| Age 27 | 19.74 | 15.71 | 0.473 |
| Age 28 | 18.60 | 17.69 | 0.863 |
| Age 29 | 16.41 | 13.43 | 0.539 |
| Age 30 | 16.24 | 12.97 | 0.509 |
| Age 31 | 13.45 | 11.35 | 0.668 |
| Age 32 | 14.54 | 11.37 | 0.527 |
| Age 33 | 10.44 | 12.97 | 0.539 |
| Age 34 | 11.16 | 9.97 | 0.752 |
| Age 35 | 11.09 | 14.87 | 0.456 |
| Age 36 | 11.41 | 6.54 | 0.230 |
| Observations | 35708 | 16817 | 52525 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

By formula type - infant formula:

Table C.12: *Statistical differences by month - BMI, infant formula*

Share of households purchasing infant formula:

| | (1) Underw/Norm | (2) Obese | (3) P |
|---|---|---|---|
| 0-36 months | 0.07 | 0.09 | 0.000*** |
| Age 0 | 0.04 | 0.05 | 0.247 |
| Age 1 | 0.25 | 0.23 | 0.518 |
| Age 2 | 0.33 | 0.35 | 0.588 |
| Age 3 | 0.27 | 0.35 | 0.020* |
| Age 4 | 0.30 | 0.35 | 0.098 |
| Age 5 | 0.31 | 0.36 | 0.057 |
| Age 6 | 0.33 | 0.40 | 0.012* |
| Age 7 | 0.27 | 0.31 | 0.156 |
| Age 8 | 0.20 | 0.22 | 0.230 |
| Age 9 | 0.16 | 0.22 | 0.004** |
| Age 10 | 0.16 | 0.20 | 0.086 |
| Age 11 | 0.13 | 0.18 | 0.029* |
| Age 12 | 0.11 | 0.15 | 0.019* |
| Age 13 | 0.06 | 0.08 | 0.197 |
| Age 14 | 0.02 | 0.02 | 0.817 |
| Age 15 | 0.02 | 0.03 | 0.154 |
| Age 16 | 0.01 | 0.01 | 0.491 |
| Age 17 | 0.01 | 0.02 | 0.318 |
| Age 18 | 0.01 | 0.01 | 0.833 |
| Age 19 | 0.01 | 0.01 | 0.855 |
| Age 20 | 0.01 | 0.01 | 0.541 |
| Age 21 | 0.00 | 0.00 | 0.932 |
| Age 22 | 0.00 | 0.00 | 0.184 |
| Age 23 | 0.01 | 0.00 | 0.881 |
| Age 24 | 0.01 | 0.01 | 0.892 |
| Age 25 | 0.01 | 0.01 | 0.524 |
| Age 26 | 0.00 | 0.01 | 0.231 |
| Age 27 | 0.01 | 0.00 | 0.913 |
| Age 28 | 0.00 | 0.01 | 0.660 |
| Age 29 | 0.00 | 0.00 | 0.818 |
| Age 30 | 0.00 | 0.00 | 0.472 |
| Age 31 | 0.00 | 0.00 | 0.809 |
| Age 32 | 0.00 | 0.00 | 0.795 |
| Age 33 | 0.00 | 0.00 | 0.905 |
| Age 34 | 0.00 | 0.00 | 0.179 |
| Age 35 | 0.01 | 0.00 | 0.133 |
| Age 36 | 0.00 | 0.00 | 0.245 |
| Observations | 35708 | 16817 | 52525 |

Amount (ml) of infant formula purchased:

| | (1) Underw/Norm | (2) Obese | (3) P |
|---|---|---|---|
| 0-36 months | 27.00 | 38.27 | 0.000*** |
| Age 0 | 5.90 | 5.66 | 0.860 |
| Age 1 | 57.10 | 61.05 | 0.726 |
| Age 2 | 128.01 | 169.47 | 0.050* |
| Age 3 | 130.66 | 155.38 | 0.260 |
| Age 4 | 136.44 | 175.36 | 0.078 |
| Age 5 | 138.74 | 180.19 | 0.068 |
| Age 6 | 157.21 | 218.56 | 0.007** |
| Age 7 | 121.81 | 138.76 | 0.366 |
| Age 8 | 81.40 | 105.39 | 0.062 |
| Age 9 | 63.91 | 95.61 | 0.005** |
| Age 10 | 58.95 | 76.55 | 0.078 |
| Age 11 | 48.19 | 74.67 | 0.007** |
| Age 12 | 34.46 | 49.76 | 0.032* |
| Age 13 | 13.48 | 20.08 | 0.118 |
| Age 14 | 3.22 | 7.41 | 0.066 |
| Age 15 | 4.99 | 5.92 | 0.723 |
| Age 16 | 3.11 | 3.65 | 0.826 |
| Age 17 | 3.72 | 6.09 | 0.401 |
| Age 18 | 2.16 | 4.44 | 0.203 |
| Age 19 | 2.93 | 5.89 | 0.304 |
| Age 20 | 2.79 | 3.10 | 0.903 |
| Age 21 | 0.79 | 0.03 | 0.412 |
| Age 22 | 0.40 | 0.85 | 0.576 |
| Age 23 | 1.41 | 1.17 | 0.850 |
| Age 24 | 1.60 | 3.31 | 0.353 |
| Age 25 | 1.45 | 3.81 | 0.255 |
| Age 26 | 1.70 | 3.03 | 0.474 |
| Age 27 | 1.99 | 1.29 | 0.712 |
| Age 28 | 1.48 | 1.75 | 0.841 |
| Age 29 | 1.75 | 0.91 | 0.622 |
| Age 30 | 2.05 | 1.36 | 0.692 |
| Age 31 | 0.66 | 1.33 | 0.525 |
| Age 32 | 0.79 | 0.88 | 0.924 |
| Age 33 | 0.25 | 0.40 | 0.702 |
| Age 34 | 1.25 | 0.00 | 0.267 |
| Age 35 | 0.62 | 0.00 | 0.343 |
| Age 36 | 0.44 | 0.00 | 0.416 |
| Observations | 35708 | 16817 | 52525 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

By formula type - follow on formula:

Table C.13: *Statistical differences by month - BMI, follow on formula*

Share of households purchasing follow on formula:

| | (1) Underw/Norm | (2) Obese | (3) P |
|---|---|---|---|
| 0-36 months | 0.04 | 0.05 | 0.843 |
| Age 0 | 0.00 | 0.01 | 0.105 |
| Age 1 | 0.00 | 0.00 | 0.473 |
| Age 2 | 0.00 | 0.00 | 0.310 |
| Age 3 | 0.00 | 0.00 | 0.479 |
| Age 4 | 0.00 | 0.00 | 0.209 |
| Age 5 | 0.01 | 0.00 | 0.959 |
| Age 6 | 0.03 | 0.04 | 0.420 |
| Age 7 | 0.14 | 0.16 | 0.498 |
| Age 8 | 0.21 | 0.22 | 0.660 |
| Age 9 | 0.24 | 0.23 | 0.510 |
| Age 10 | 0.27 | 0.25 | 0.418 |
| Age 11 | 0.26 | 0.26 | 0.828 |
| Age 12 | 0.23 | 0.22 | 0.796 |
| Age 13 | 0.13 | 0.10 | 0.091 |
| Age 14 | 0.04 | 0.04 | 0.885 |
| Age 15 | 0.03 | 0.03 | 0.823 |
| Age 16 | 0.02 | 0.01 | 0.162 |
| Age 17 | 0.02 | 0.01 | 0.414 |
| Age 18 | 0.01 | 0.01 | 0.463 |
| Age 19 | 0.01 | 0.00 | 0.054 |
| Age 20 | 0.01 | 0.01 | 0.784 |
| Age 21 | 0.00 | 0.01 | 0.246 |
| Age 22 | 0.01 | 0.00 | 0.334 |
| Age 23 | 0.00 | 0.00 | 0.417 |
| Age 24 | 0.00 | 0.00 | 0.418 |
| Age 25 | 0.00 | 0.00 | 0.403 |
| Age 26 | 0.00 | 0.00 | 0.348 |
| Age 27 | 0.00 | 0.00 | 0.173 |
| Age 28 | 0.00 | 0.00 | 0.032* |
| Age 29 | 0.00 | 0.00 | 0.351 |
| Age 30 | 0.00 | 0.00 | 0.904 |
| Age 31 | 0.00 | 0.00 | 0.348 |
| Age 32 | 0.00 | 0.00 | 0.595 |
| Age 33 | 0.00 | 0.00 | 0.342 |
| Age 34 | 0.00 | 0.00 | 0.502 |
| Age 35 | 0.00 | 0.00 | 0.502 |
| Age 36 | 0.00 | 0.00 | 0.245 |
| Observations | 35708 | 16817 | 52525 |

Amount (ml) of follow on formula purchased:

| | (1) Underw/Norm | (2) Obese | (3) P |
|---|---|---|---|
| 0-36 months | 16.88 | 18.14 | 0.174 |
| Age 0 | 1.16 | 2.52 | 0.203 |
| Age 1 | 0.39 | 0.00 | 0.473 |
| Age 2 | 0.99 | 0.00 | 0.340 |
| Age 3 | 0.32 | 0.00 | 0.479 |
| Age 4 | 3.71 | 0.00 | 0.370 |
| Age 5 | 1.31 | 1.67 | 0.789 |
| Age 6 | 9.16 | 9.98 | 0.823 |
| Age 7 | 50.73 | 58.35 | 0.429 |
| Age 8 | 86.95 | 102.79 | 0.213 |
| Age 9 | 99.25 | 102.04 | 0.828 |
| Age 10 | 104.26 | 115.85 | 0.379 |
| Age 11 | 108.91 | 110.80 | 0.886 |
| Age 12 | 90.46 | 73.65 | 0.130 |
| Age 13 | 35.71 | 25.16 | 0.122 |
| Age 14 | 12.23 | 13.42 | 0.775 |
| Age 15 | 8.40 | 9.50 | 0.747 |
| Age 16 | 5.90 | 3.37 | 0.345 |
| Age 17 | 5.17 | 4.66 | 0.862 |
| Age 18 | 2.56 | 3.43 | 0.643 |
| Age 19 | 2.32 | 0.77 | 0.226 |
| Age 20 | 1.77 | 1.64 | 0.926 |
| Age 21 | 0.77 | 3.40 | 0.084 |
| Age 22 | 3.95 | 0.88 | 0.368 |
| Age 23 | 0.79 | 1.34 | 0.651 |
| Age 24 | 0.58 | 1.31 | 0.418 |
| Age 25 | 0.89 | 2.15 | 0.435 |
| Age 26 | 0.71 | 0.00 | 0.495 |
| Age 27 | 0.35 | 0.96 | 0.444 |
| Age 28 | 0.00 | 1.74 | 0.060 |
| Age 29 | 1.05 | 0.00 | 0.377 |
| Age 30 | 1.04 | 0.40 | 0.598 |
| Age 31 | 0.37 | 0.00 | 0.349 |
| Age 32 | 1.12 | 0.36 | 0.467 |
| Age 33 | 0.35 | 0.00 | 0.346 |
| Age 34 | 0.01 | 0.00 | 0.502 |
| Age 35 | 0.20 | 0.00 | 0.502 |
| Age 36 | 1.07 | 0.00 | 0.282 |
| Observations | 35708 | 16817 | 52525 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

By formula type - growing up formula:

Table C.14: *Statistical differences by month - BMI, growing up formula*

Share of households purchasing growing up formula:

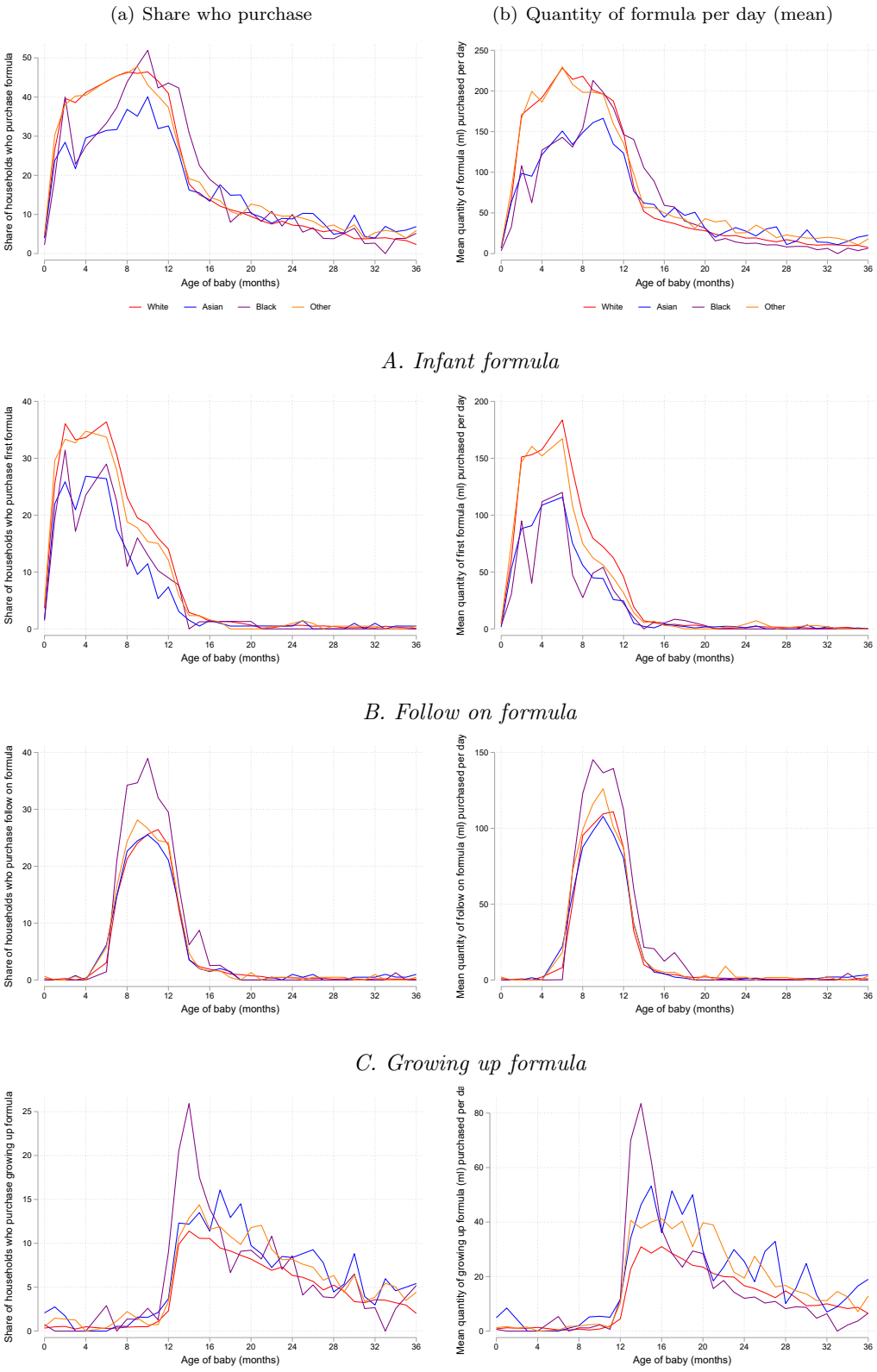
| | (1) Underw/Norm | (2) Obese | (3) P |
|---|---|---|---|
| 0-36 months | 0.05 | 0.05 | 0.148 |
| Age 0 | 0.00 | 0.01 | 0.633 |
| Age 1 | 0.01 | 0.01 | 0.778 |
| Age 2 | 0.01 | 0.01 | 0.776 |
| Age 3 | 0.00 | 0.01 | 0.222 |
| Age 4 | 0.00 | 0.01 | 0.792 |
| Age 5 | 0.00 | 0.01 | 0.418 |
| Age 6 | 0.01 | 0.00 | 0.746 |
| Age 7 | 0.01 | 0.00 | 0.757 |
| Age 8 | 0.01 | 0.01 | 0.357 |
| Age 9 | 0.01 | 0.01 | 0.816 |
| Age 10 | 0.01 | 0.01 | 0.979 |
| Age 11 | 0.01 | 0.01 | 0.500 |
| Age 12 | 0.02 | 0.04 | 0.038* |
| Age 13 | 0.11 | 0.10 | 0.528 |
| Age 14 | 0.12 | 0.12 | 0.799 |
| Age 15 | 0.11 | 0.11 | 0.900 |
| Age 16 | 0.11 | 0.11 | 0.966 |
| Age 17 | 0.11 | 0.09 | 0.335 |
| Age 18 | 0.10 | 0.09 | 0.525 |
| Age 19 | 0.10 | 0.10 | 1.000 |
| Age 20 | 0.09 | 0.09 | 0.603 |
| Age 21 | 0.10 | 0.08 | 0.281 |
| Age 22 | 0.08 | 0.08 | 0.902 |
| Age 23 | 0.08 | 0.07 | 0.635 |
| Age 24 | 0.07 | 0.07 | 0.818 |
| Age 25 | 0.07 | 0.05 | 0.186 |
| Age 26 | 0.06 | 0.07 | 0.701 |
| Age 27 | 0.05 | 0.05 | 0.688 |
| Age 28 | 0.05 | 0.05 | 0.820 |
| Age 29 | 0.05 | 0.05 | 0.640 |
| Age 30 | 0.04 | 0.04 | 0.784 |
| Age 31 | 0.04 | 0.04 | 0.900 |
| Age 32 | 0.04 | 0.04 | 0.629 |
| Age 33 | 0.04 | 0.03 | 0.657 |
| Age 34 | 0.03 | 0.04 | 0.448 |
| Age 35 | 0.03 | 0.04 | 0.652 |
| Age 36 | 0.03 | 0.02 | 0.404 |
| Observations | 35708 | 16817 | 52525 |

Amount (ml) of growing up formula purchased:

| | (1) Underw/Norm | (2) Obese | (3) P |
|---|---|---|---|
| 0-36 months | 14.59 | 13.15 | 0.063 |
| Age 0 | 0.97 | 1.85 | 0.247 |
| Age 1 | 2.35 | 1.19 | 0.641 |
| Age 2 | 1.25 | 1.35 | 0.946 |
| Age 3 | 0.32 | 3.58 | 0.086 |
| Age 4 | 1.70 | 1.08 | 0.727 |
| Age 5 | 0.61 | 1.85 | 0.206 |
| Age 6 | 0.68 | 1.31 | 0.461 |
| Age 7 | 0.91 | 0.54 | 0.670 |
| Age 8 | 1.28 | 1.71 | 0.709 |
| Age 9 | 0.52 | 0.90 | 0.517 |
| Age 10 | 1.82 | 1.24 | 0.693 |
| Age 11 | 3.13 | 0.73 | 0.155 |
| Age 12 | 4.95 | 8.39 | 0.172 |
| Age 13 | 26.62 | 29.92 | 0.588 |
| Age 14 | 36.12 | 33.15 | 0.679 |
| Age 15 | 32.63 | 34.29 | 0.814 |
| Age 16 | 33.42 | 30.37 | 0.656 |
| Age 17 | 34.13 | 25.62 | 0.231 |
| Age 18 | 30.27 | 33.88 | 0.596 |
| Age 19 | 30.17 | 30.88 | 0.919 |
| Age 20 | 30.68 | 23.50 | 0.282 |
| Age 21 | 28.77 | 24.65 | 0.506 |
| Age 22 | 23.13 | 20.82 | 0.693 |
| Age 23 | 23.34 | 21.11 | 0.695 |
| Age 24 | 18.00 | 17.73 | 0.957 |
| Age 25 | 19.68 | 15.98 | 0.567 |
| Age 26 | 16.15 | 19.86 | 0.467 |
| Age 27 | 17.40 | 12.66 | 0.365 |
| Age 28 | 16.21 | 12.61 | 0.446 |
| Age 29 | 13.42 | 11.31 | 0.626 |
| Age 30 | 12.96 | 10.00 | 0.499 |
| Age 31 | 12.05 | 7.79 | 0.310 |
| Age 32 | 12.04 | 8.03 | 0.343 |
| Age 33 | 9.84 | 10.63 | 0.838 |
| Age 34 | 9.77 | 8.40 | 0.693 |
| Age 35 | 10.07 | 13.29 | 0.508 |
| Age 36 | 9.71 | 5.35 | 0.253 |
| Observations | 35708 | 16817 | 52525 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

Figure C.3: *Purchases of formula over first 6 months, by ethnicity*




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A.*

Table C.15: *Statistical differences by month - Ethnicity, any formula*

| Share of households purchasing formula: | | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| | White+Oth | Asian+Black | P |
| 0-36 months | 0.08 | 0.05 | 0.000*** |
| 0-36 months | 0.05 | 0.05 | 0.052 |
| 0-36 months | 0.05 | 0.06 | 0.000*** |
| 0-36 months | 0.18 | 0.16 | 0.000*** |
| Age 0 | 0.04 | 0.04 | 0.410 |
| Age 1 | 0.27 | 0.23 | 0.286 |
| Age 2 | 0.39 | 0.31 | 0.047* |
| Age 3 | 0.39 | 0.22 | 0.000*** |
| Age 4 | 0.41 | 0.29 | 0.001*** |
| Age 5 | 0.43 | 0.30 | 0.000*** |
| Age 6 | 0.44 | 0.32 | 0.000*** |
| Age 7 | 0.45 | 0.33 | 0.000*** |
| Age 8 | 0.46 | 0.39 | 0.020* |
| Age 9 | 0.46 | 0.39 | 0.022* |
| Age 10 | 0.46 | 0.43 | 0.439 |
| Age 11 | 0.44 | 0.35 | 0.007** |
| Age 12 | 0.40 | 0.36 | 0.143 |
| Age 13 | 0.28 | 0.30 | 0.437 |
| Age 14 | 0.18 | 0.21 | 0.303 |
| Age 15 | 0.15 | 0.17 | 0.368 |
| Age 16 | 0.14 | 0.15 | 0.613 |
| Age 17 | 0.12 | 0.17 | 0.017* |
| Age 18 | 0.11 | 0.13 | 0.357 |
| Age 19 | 0.10 | 0.14 | 0.100 |
| Age 20 | 0.10 | 0.10 | 0.803 |
| Age 21 | 0.09 | 0.09 | 0.896 |
| Age 22 | 0.08 | 0.09 | 0.652 |
| Age 23 | 0.08 | 0.08 | 0.968 |
| Age 24 | 0.08 | 0.09 | 0.337 |
| Age 25 | 0.07 | 0.09 | 0.295 |
| Age 26 | 0.07 | 0.09 | 0.090 |
| Age 27 | 0.06 | 0.07 | 0.493 |
| Age 28 | 0.06 | 0.05 | 0.312 |
| Age 29 | 0.05 | 0.05 | 0.960 |
| Age 30 | 0.04 | 0.09 | 0.000*** |
| Age 31 | 0.04 | 0.04 | 0.915 |
| Age 32 | 0.04 | 0.04 | 0.711 |
| Age 33 | 0.04 | 0.05 | 0.524 |
| Age 34 | 0.04 | 0.05 | 0.308 |
| Age 35 | 0.03 | 0.05 | 0.094 |
| Age 36 | 0.03 | 0.06 | 0.001*** |
| Observations | 77773 | 10008 | 87781 |

| Amount (ml) of formula purchased: | | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| | White+Oth | Asian+Black | P |
| 0-36 months | 33.08 | 18.74 | 0.000*** |
| 0-36 months | 17.46 | 18.61 | 0.279 |
| 0-36 months | 12.51 | 18.09 | 0.000*** |
| 0-36 months | 69.81 | 57.94 | 0.000*** |
| Age 0 | 7.47 | 6.24 | 0.543 |
| Age 1 | 68.23 | 56.54 | 0.412 |
| Age 2 | 170.06 | 100.80 | 0.012* |
| Age 3 | 183.35 | 88.22 | 0.001*** |
| Age 4 | 190.95 | 123.04 | 0.009** |
| Age 5 | 210.46 | 121.54 | 0.001*** |
| Age 6 | 228.44 | 148.58 | 0.002** |
| Age 7 | 213.48 | 133.30 | 0.001*** |
| Age 8 | 215.57 | 150.33 | 0.002** |
| Age 9 | 200.57 | 175.78 | 0.214 |
| Age 10 | 196.22 | 175.55 | 0.267 |
| Age 11 | 183.98 | 147.74 | 0.043* |
| Age 12 | 147.67 | 130.22 | 0.249 |
| Age 13 | 84.24 | 94.87 | 0.385 |
| Age 14 | 52.31 | 74.74 | 0.023* |
| Age 15 | 45.16 | 68.59 | 0.013* |
| Age 16 | 41.07 | 48.83 | 0.386 |
| Age 17 | 37.81 | 56.66 | 0.040* |
| Age 18 | 33.77 | 45.12 | 0.162 |
| Age 19 | 29.88 | 46.70 | 0.034* |
| Age 20 | 29.80 | 31.22 | 0.855 |
| Age 21 | 25.43 | 18.95 | 0.329 |
| Age 22 | 23.70 | 24.43 | 0.919 |
| Age 23 | 22.53 | 27.34 | 0.452 |
| Age 24 | 19.72 | 23.73 | 0.492 |
| Age 25 | 20.84 | 19.39 | 0.837 |
| Age 26 | 17.64 | 24.99 | 0.223 |
| Age 27 | 14.97 | 26.92 | 0.030* |
| Age 28 | 17.70 | 10.27 | 0.171 |
| Age 29 | 15.50 | 13.86 | 0.759 |
| Age 30 | 12.13 | 23.56 | 0.024* |
| Age 31 | 11.26 | 11.63 | 0.940 |
| Age 32 | 11.92 | 11.77 | 0.977 |
| Age 33 | 11.44 | 7.94 | 0.434 |
| Age 34 | 10.36 | 12.71 | 0.583 |
| Age 35 | 10.18 | 15.62 | 0.311 |
| Age 36 | 8.61 | 18.17 | 0.038* |
| Observations | 77773 | 10008 | 87781 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

By formula type - infant formula:

Table C.16: *Statistical differences by month - Ethnicity, infant formula*

Share of households purchasing infant formula:

| | (1) White+Oth | (2) Asian+Black | (3) P |
|---|---|---|---|
| 0-36 months | 0.08 | 0.05 | 0.000*** |
| Age 0 | 0.04 | 0.02 | 0.006** |
| Age 1 | 0.26 | 0.21 | 0.237 |
| Age 2 | 0.36 | 0.27 | 0.036* |
| Age 3 | 0.33 | 0.20 | 0.001*** |
| Age 4 | 0.34 | 0.26 | 0.027* |
| Age 5 | 0.35 | 0.26 | 0.005** |
| Age 6 | 0.36 | 0.27 | 0.006** |
| Age 7 | 0.30 | 0.19 | 0.000*** |
| Age 8 | 0.23 | 0.13 | 0.000*** |
| Age 9 | 0.19 | 0.11 | 0.002** |
| Age 10 | 0.18 | 0.12 | 0.012* |
| Age 11 | 0.16 | 0.07 | 0.000*** |
| Age 12 | 0.14 | 0.08 | 0.007** |
| Age 13 | 0.07 | 0.04 | 0.070 |
| Age 14 | 0.03 | 0.01 | 0.089 |
| Age 15 | 0.02 | 0.01 | 0.084 |
| Age 16 | 0.01 | 0.01 | 0.921 |
| Age 17 | 0.01 | 0.01 | 0.768 |
| Age 18 | 0.01 | 0.01 | 0.551 |
| Age 19 | 0.01 | 0.01 | 0.781 |
| Age 20 | 0.01 | 0.01 | 0.796 |
| Age 21 | 0.00 | 0.00 | 0.373 |
| Age 22 | 0.00 | 0.00 | 0.669 |
| Age 23 | 0.00 | 0.00 | 0.817 |
| Age 24 | 0.01 | 0.00 | 0.561 |
| Age 25 | 0.01 | 0.01 | 0.496 |
| Age 26 | 0.01 | 0.00 | 0.225 |
| Age 27 | 0.00 | 0.00 | 0.246 |
| Age 28 | 0.00 | 0.00 | 0.272 |
| Age 29 | 0.00 | 0.00 | 0.410 |
| Age 30 | 0.00 | 0.01 | 0.166 |
| Age 31 | 0.00 | 0.00 | 0.371 |
| Age 32 | 0.00 | 0.01 | 0.096 |
| Age 33 | 0.00 | 0.00 | 0.276 |
| Age 34 | 0.00 | 0.00 | 0.824 |
| Age 35 | 0.00 | 0.00 | 0.574 |
| Age 36 | 0.00 | 0.00 | 0.426 |
| Observations | 77773 | 10008 | 87781 |

Amount (ml) of infant formula purchased:

| | (1) White+Oth | (2) Asian+Black | (3) P |
|---|---|---|---|
| 0-36 months | 33.08 | 18.74 | 0.000*** |
| Age 0 | 5.20 | 1.90 | 0.016* |
| Age 1 | 62.71 | 48.02 | 0.275 |
| Age 2 | 150.59 | 89.77 | 0.020* |
| Age 3 | 153.92 | 80.00 | 0.006** |
| Age 4 | 156.90 | 109.53 | 0.052 |
| Age 5 | 170.54 | 104.79 | 0.009** |
| Age 6 | 181.41 | 116.96 | 0.008** |
| Age 7 | 135.47 | 67.71 | 0.001** |
| Age 8 | 96.79 | 48.03 | 0.001** |
| Age 9 | 77.43 | 46.07 | 0.021* |
| Age 10 | 70.06 | 47.12 | 0.056 |
| Age 11 | 60.26 | 28.22 | 0.003** |
| Age 12 | 44.06 | 23.94 | 0.016* |
| Age 13 | 18.73 | 6.50 | 0.017* |
| Age 14 | 6.89 | 1.50 | 0.105 |
| Age 15 | 5.68 | 2.41 | 0.263 |
| Age 16 | 3.54 | 4.66 | 0.673 |
| Age 17 | 3.86 | 4.55 | 0.807 |
| Age 18 | 2.58 | 3.51 | 0.635 |
| Age 19 | 2.97 | 2.07 | 0.731 |
| Age 20 | 2.01 | 2.12 | 0.963 |
| Age 21 | 0.38 | 1.31 | 0.323 |
| Age 22 | 0.54 | 1.68 | 0.243 |
| Age 23 | 1.01 | 1.53 | 0.686 |
| Age 24 | 1.57 | 0.72 | 0.604 |
| Age 25 | 2.61 | 1.96 | 0.814 |
| Age 26 | 1.93 | 0.00 | 0.315 |
| Age 27 | 1.42 | 0.00 | 0.388 |
| Age 28 | 1.36 | 0.00 | 0.334 |
| Age 29 | 1.49 | 0.00 | 0.442 |
| Age 30 | 1.09 | 2.48 | 0.373 |
| Age 31 | 0.78 | 0.00 | 0.429 |
| Age 32 | 0.63 | 1.41 | 0.423 |
| Age 33 | 0.92 | 0.00 | 0.500 |
| Age 34 | 1.30 | 0.12 | 0.471 |
| Age 35 | 0.21 | 0.63 | 0.463 |
| Age 36 | 0.21 | 0.10 | 0.807 |
| Observations | 77773 | 10008 | 87781 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

By formula type - follow on formula:

Table C.17: *Statistical differences by month - Ethnicity, follow on formula*

Share of households purchasing follow on formula:

| | (1) White+Oth | (2) Asian+Black | (3) P |
|---|---|---|---|
| 0-36 months | 0.05 | 0.05 | 0.052 |
| Age 0 | 0.00 | 0.00 | 0.144 |
| Age 1 | 0.00 | 0.00 | 0.729 |
| Age 2 | 0.00 | 0.00 | 0.551 |
| Age 3 | 0.00 | 0.01 | 0.067 |
| Age 4 | 0.00 | 0.00 | 0.434 |
| Age 5 | 0.01 | 0.01 | 0.727 |
| Age 6 | 0.03 | 0.05 | 0.244 |
| Age 7 | 0.15 | 0.16 | 0.528 |
| Age 8 | 0.22 | 0.26 | 0.124 |
| Age 9 | 0.25 | 0.27 | 0.323 |
| Age 10 | 0.26 | 0.29 | 0.205 |
| Age 11 | 0.26 | 0.26 | 0.968 |
| Age 12 | 0.24 | 0.24 | 0.935 |
| Age 13 | 0.13 | 0.14 | 0.441 |
| Age 14 | 0.04 | 0.04 | 0.622 |
| Age 15 | 0.02 | 0.04 | 0.097 |
| Age 16 | 0.02 | 0.02 | 0.922 |
| Age 17 | 0.02 | 0.02 | 0.463 |
| Age 18 | 0.01 | 0.01 | 0.466 |
| Age 19 | 0.01 | 0.00 | 0.126 |
| Age 20 | 0.01 | 0.00 | 0.141 |
| Age 21 | 0.01 | 0.00 | 0.221 |
| Age 22 | 0.00 | 0.00 | 0.905 |
| Age 23 | 0.00 | 0.00 | 0.258 |
| Age 24 | 0.00 | 0.01 | 0.393 |
| Age 25 | 0.00 | 0.00 | 0.933 |
| Age 26 | 0.00 | 0.01 | 0.243 |
| Age 27 | 0.00 | 0.00 | 0.332 |
| Age 28 | 0.00 | 0.00 | 0.464 |
| Age 29 | 0.00 | 0.00 | 0.410 |
| Age 30 | 0.00 | 0.00 | 0.566 |
| Age 31 | 0.00 | 0.00 | 0.093 |
| Age 32 | 0.00 | 0.00 | 0.825 |
| Age 33 | 0.00 | 0.01 | 0.097 |
| Age 34 | 0.00 | 0.01 | 0.047* |
| Age 35 | 0.00 | 0.00 | 0.417 |
| Age 36 | 0.00 | 0.01 | 0.109 |
| Observations | 77773 | 10008 | 87781 |

Amount (ml) of follow on formula purchased:

| | (1) White+Oth | (2) Asian+Black | (3) P |
|---|---|---|---|
| 0-36 months | 17.46 | 18.61 | 0.279 |
| Age 0 | 1.21 | 0.00 | 0.219 |
| Age 1 | 0.17 | 0.00 | 0.729 |
| Age 2 | 0.70 | 0.00 | 0.567 |
| Age 3 | 0.01 | 1.19 | 0.004** |
| Age 4 | 1.70 | 0.00 | 0.647 |
| Age 5 | 1.32 | 1.59 | 0.850 |
| Age 6 | 9.49 | 16.00 | 0.171 |
| Age 7 | 53.08 | 60.81 | 0.491 |
| Age 8 | 95.85 | 97.39 | 0.918 |
| Age 9 | 104.22 | 111.61 | 0.634 |
| Age 10 | 111.66 | 116.04 | 0.779 |
| Age 11 | 109.58 | 108.77 | 0.957 |
| Age 12 | 87.20 | 89.67 | 0.847 |
| Age 13 | 32.79 | 43.86 | 0.136 |
| Age 14 | 10.36 | 15.96 | 0.199 |
| Age 15 | 6.38 | 9.58 | 0.343 |
| Age 16 | 4.02 | 6.49 | 0.356 |
| Age 17 | 3.76 | 6.42 | 0.359 |
| Age 18 | 2.18 | 3.42 | 0.499 |
| Age 19 | 1.48 | 0.00 | 0.208 |
| Age 20 | 2.19 | 0.00 | 0.224 |
| Age 21 | 1.27 | 0.00 | 0.361 |
| Age 22 | 1.96 | 0.65 | 0.661 |
| Age 23 | 1.14 | 0.00 | 0.357 |
| Age 24 | 1.09 | 0.82 | 0.827 |
| Age 25 | 1.12 | 0.71 | 0.785 |
| Age 26 | 0.73 | 0.17 | 0.604 |
| Age 27 | 0.70 | 0.00 | 0.421 |
| Age 28 | 0.56 | 0.00 | 0.540 |
| Age 29 | 0.93 | 0.00 | 0.487 |
| Age 30 | 0.79 | 0.70 | 0.936 |
| Age 31 | 0.08 | 0.70 | 0.071 |
| Age 32 | 0.62 | 1.41 | 0.440 |
| Age 33 | 0.42 | 1.45 | 0.163 |
| Age 34 | 0.05 | 2.54 | 0.000*** |
| Age 35 | 0.97 | 2.00 | 0.670 |
| Age 36 | 0.98 | 2.48 | 0.423 |
| Observations | 77773 | 10008 | 87781 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

By formula type - growing up formula:

Table C.18: *Statistical differences by month - Ethnicity, growing up formula*

| Share of households purchasing growing up formula: | | | |
|---|---|---|---|
| | (1) White+Oth | (2) Asian+Black | (3) P |
| 0-36 months | 0.05 | 0.06 | 0.000*** |
| Age 0 | 0.00 | 0.02 | 0.000*** |
| Age 1 | 0.01 | 0.02 | 0.048* |
| Age 2 | 0.01 | 0.01 | 0.334 |
| Age 3 | 0.00 | 0.00 | 0.445 |
| Age 4 | 0.00 | 0.00 | 0.355 |
| Age 5 | 0.00 | 0.01 | 0.255 |
| Age 6 | 0.00 | 0.01 | 0.212 |
| Age 7 | 0.00 | 0.00 | 0.919 |
| Age 8 | 0.01 | 0.01 | 0.878 |
| Age 9 | 0.01 | 0.02 | 0.107 |
| Age 10 | 0.01 | 0.02 | 0.012* |
| Age 11 | 0.01 | 0.02 | 0.235 |
| Age 12 | 0.02 | 0.05 | 0.009** |
| Age 13 | 0.10 | 0.15 | 0.018* |
| Age 14 | 0.12 | 0.16 | 0.027* |
| Age 15 | 0.11 | 0.15 | 0.074 |
| Age 16 | 0.11 | 0.12 | 0.467 |
| Age 17 | 0.10 | 0.15 | 0.009** |
| Age 18 | 0.09 | 0.11 | 0.306 |
| Age 19 | 0.09 | 0.13 | 0.022* |
| Age 20 | 0.09 | 0.10 | 0.581 |
| Age 21 | 0.08 | 0.09 | 0.730 |
| Age 22 | 0.07 | 0.08 | 0.524 |
| Age 23 | 0.07 | 0.08 | 0.664 |
| Age 24 | 0.07 | 0.08 | 0.237 |
| Age 25 | 0.06 | 0.08 | 0.404 |
| Age 26 | 0.06 | 0.08 | 0.120 |
| Age 27 | 0.05 | 0.07 | 0.166 |
| Age 28 | 0.05 | 0.04 | 0.450 |
| Age 29 | 0.05 | 0.05 | 0.577 |
| Age 30 | 0.04 | 0.08 | 0.000*** |
| Age 31 | 0.03 | 0.04 | 0.795 |
| Age 32 | 0.04 | 0.03 | 0.545 |
| Age 33 | 0.04 | 0.04 | 0.606 |
| Age 34 | 0.03 | 0.04 | 0.601 |
| Age 35 | 0.03 | 0.05 | 0.138 |
| Age 36 | 0.02 | 0.05 | 0.002** |
| Observations | 77773 | 10008 | 87781 |

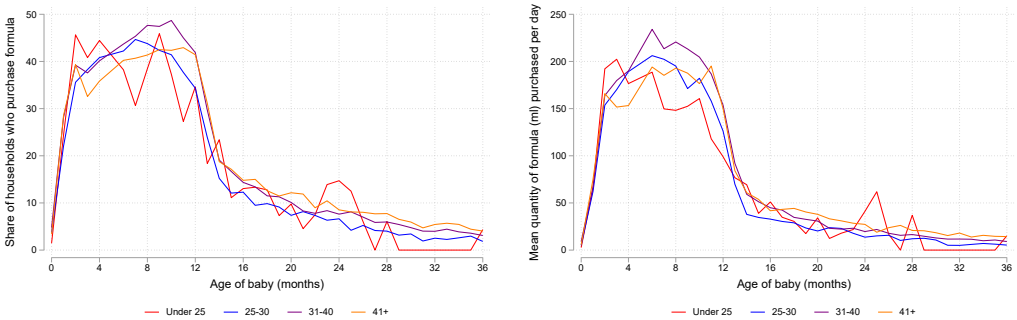
| Amount (ml) of growing up formula purchased: | | | |
|---|---|---|---|
| | (1) White+Oth | (2) Asian+Black | (3) P |
| 0-36 months | 12.51 | 18.09 | 0.000*** |
| Age 0 | 0.86 | 4.05 | 0.000*** |
| Age 1 | 1.26 | 6.59 | 0.033* |
| Age 2 | 1.06 | 3.25 | 0.172 |
| Age 3 | 1.10 | 0.00 | 0.536 |
| Age 4 | 1.18 | 0.00 | 0.476 |
| Age 5 | 0.69 | 1.28 | 0.532 |
| Age 6 | 0.46 | 1.50 | 0.181 |
| Age 7 | 0.57 | 0.78 | 0.797 |
| Age 8 | 0.86 | 1.82 | 0.357 |
| Age 9 | 0.66 | 4.05 | 0.002** |
| Age 10 | 1.00 | 4.53 | 0.021* |
| Age 11 | 1.78 | 3.78 | 0.243 |
| Age 12 | 5.23 | 11.66 | 0.027* |
| Age 13 | 24.93 | 44.39 | 0.004** |
| Age 14 | 31.76 | 57.18 | 0.001** |
| Age 15 | 29.98 | 55.86 | 0.001*** |
| Age 16 | 32.18 | 36.45 | 0.594 |
| Age 17 | 29.53 | 45.07 | 0.057 |
| Age 18 | 28.06 | 37.56 | 0.200 |
| Age 19 | 24.86 | 44.29 | 0.008** |
| Age 20 | 25.24 | 29.10 | 0.585 |
| Age 21 | 22.98 | 17.64 | 0.394 |
| Age 22 | 21.03 | 22.10 | 0.870 |
| Age 23 | 19.99 | 25.81 | 0.345 |
| Age 24 | 16.91 | 22.10 | 0.338 |
| Age 25 | 16.82 | 16.62 | 0.975 |
| Age 26 | 14.82 | 24.11 | 0.088 |
| Age 27 | 12.65 | 26.92 | 0.006** |
| Age 28 | 14.96 | 9.57 | 0.280 |
| Age 29 | 12.49 | 13.86 | 0.771 |
| Age 30 | 9.75 | 20.39 | 0.020* |
| Age 31 | 9.56 | 10.94 | 0.757 |
| Age 32 | 10.14 | 6.83 | 0.453 |
| Age 33 | 9.60 | 6.49 | 0.433 |
| Age 34 | 8.68 | 9.54 | 0.822 |
| Age 35 | 8.57 | 12.99 | 0.341 |
| Age 36 | 7.08 | 15.59 | 0.039* |
| Observations | 77773 | 10008 | 87781 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

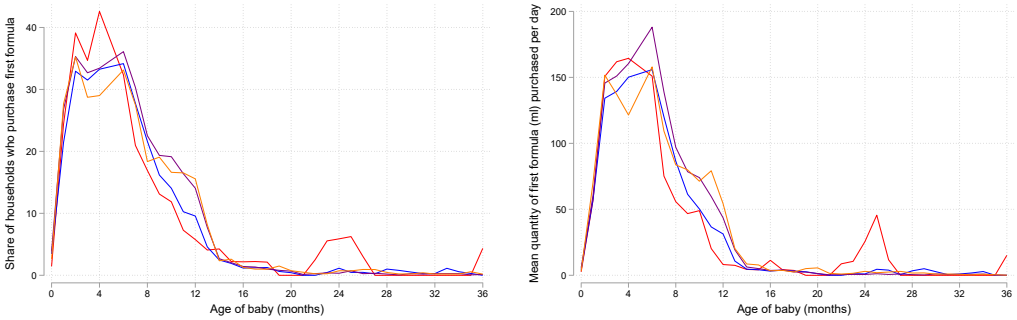
Figure C.4: *Purchases of formula over first 36 months, by age of main shopper*

(a) Share who purchase

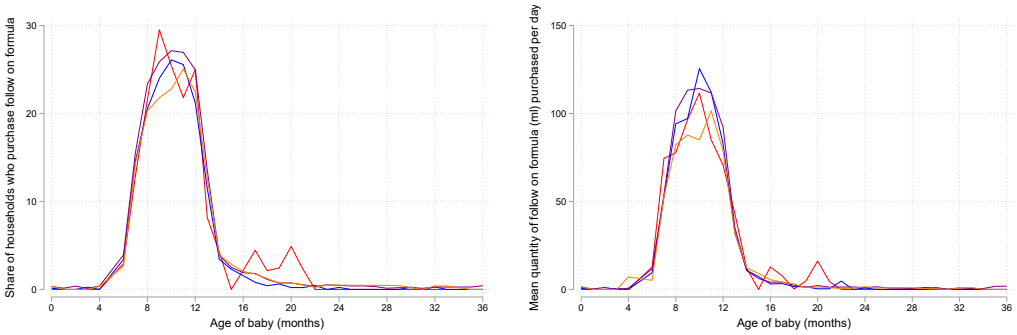
(b) Quantity of formula per day (mean)



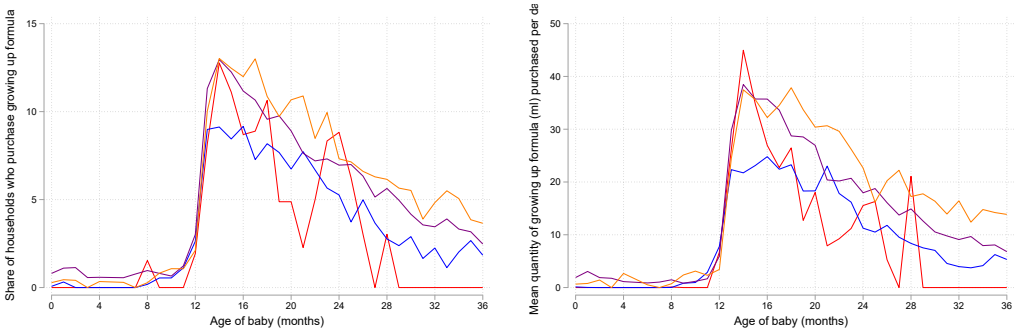

*A. Infant formula*




*B. Follow on formula*




*C. Growing up formula*




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months, indicated as '0' on the x-Axis). For details see Appendix A.*

Table C.19: *Statistical differences by month - Age of main shopper, any formula*

Share of households purchasing formula:

| | (1) Under 31 | (2) 31+ | (3) P |
|---|---|---|---|
| 0-36 months | 0.09 | 0.07 | 0.000*** |
| 0-36 months | 0.05 | 0.05 | 0.010* |
| 0-36 months | 0.03 | 0.05 | 0.000*** |
| 0-36 months | 0.18 | 0.18 | 0.078 |
| Age 0 | 0.04 | 0.04 | 0.117 |
| Age 1 | 0.22 | 0.28 | 0.032* |
| Age 2 | 0.37 | 0.39 | 0.397 |
| Age 3 | 0.39 | 0.36 | 0.432 |
| Age 4 | 0.41 | 0.39 | 0.427 |
| Age 5 | 0.42 | 0.42 | 0.767 |
| Age 6 | 0.42 | 0.43 | 0.616 |
| Age 7 | 0.43 | 0.44 | 0.641 |
| Age 8 | 0.43 | 0.46 | 0.186 |
| Age 9 | 0.43 | 0.46 | 0.117 |
| Age 10 | 0.41 | 0.47 | 0.007** |
| Age 11 | 0.37 | 0.45 | 0.001*** |
| Age 12 | 0.34 | 0.42 | 0.001** |
| Age 13 | 0.23 | 0.30 | 0.002** |
| Age 14 | 0.16 | 0.19 | 0.091 |
| Age 15 | 0.12 | 0.17 | 0.006** |
| Age 16 | 0.12 | 0.14 | 0.208 |
| Age 17 | 0.10 | 0.14 | 0.016* |
| Age 18 | 0.10 | 0.12 | 0.301 |
| Age 19 | 0.09 | 0.11 | 0.126 |
| Age 20 | 0.08 | 0.11 | 0.044* |
| Age 21 | 0.08 | 0.09 | 0.387 |
| Age 22 | 0.07 | 0.08 | 0.616 |
| Age 23 | 0.07 | 0.09 | 0.181 |
| Age 24 | 0.07 | 0.08 | 0.663 |
| Age 25 | 0.05 | 0.08 | 0.014* |
| Age 26 | 0.05 | 0.07 | 0.142 |
| Age 27 | 0.04 | 0.06 | 0.047* |
| Age 28 | 0.04 | 0.06 | 0.083 |
| Age 29 | 0.03 | 0.06 | 0.025* |
| Age 30 | 0.03 | 0.05 | 0.106 |
| Age 31 | 0.02 | 0.04 | 0.023* |
| Age 32 | 0.02 | 0.04 | 0.068 |
| Age 33 | 0.02 | 0.05 | 0.017* |
| Age 34 | 0.02 | 0.04 | 0.088 |
| Age 35 | 0.03 | 0.04 | 0.330 |
| Age 36 | 0.02 | 0.03 | 0.187 |
| Observations | 19297 | 68485 | 87782 |

Amount (ml) of formula purchased:

| | (1) Under 31 | (2) 31+ | (3) P |
|---|---|---|---|
| 0-36 months | 34.70 | 30.53 | 0.001*** |
| 0-36 months | 20.01 | 16.91 | 0.000*** |
| 0-36 months | 8.84 | 14.36 | 0.000*** |
| 0-36 months | 70.97 | 67.75 | 0.053 |
| Age 0 | 4.90 | 8.19 | 0.023* |
| Age 1 | 62.51 | 68.67 | 0.534 |
| Age 2 | 158.27 | 164.37 | 0.749 |
| Age 3 | 173.75 | 173.32 | 0.982 |
| Age 4 | 187.92 | 181.86 | 0.738 |
| Age 5 | 194.70 | 203.67 | 0.617 |
| Age 6 | 204.27 | 225.57 | 0.245 |
| Age 7 | 197.08 | 207.53 | 0.532 |
| Age 8 | 190.20 | 214.73 | 0.098 |
| Age 9 | 169.40 | 207.80 | 0.007** |
| Age 10 | 180.07 | 198.65 | 0.170 |
| Age 11 | 154.22 | 188.49 | 0.009** |
| Age 12 | 123.83 | 152.90 | 0.009** |
| Age 13 | 70.44 | 90.31 | 0.030* |
| Age 14 | 40.47 | 59.53 | 0.010* |
| Age 15 | 34.95 | 51.81 | 0.018* |
| Age 16 | 34.33 | 44.25 | 0.145 |
| Age 17 | 30.75 | 42.58 | 0.091 |
| Age 18 | 29.03 | 36.73 | 0.219 |
| Age 19 | 22.98 | 34.24 | 0.066 |
| Age 20 | 21.37 | 32.30 | 0.068 |
| Age 21 | 22.80 | 25.23 | 0.633 |
| Age 22 | 22.57 | 24.08 | 0.790 |
| Age 23 | 18.13 | 24.30 | 0.223 |
| Age 24 | 15.68 | 21.28 | 0.230 |
| Age 25 | 18.33 | 21.23 | 0.615 |
| Age 26 | 15.81 | 19.14 | 0.501 |
| Age 27 | 9.44 | 17.97 | 0.063 |
| Age 28 | 13.91 | 17.46 | 0.434 |
| Age 29 | 11.69 | 16.05 | 0.344 |
| Age 30 | 9.94 | 14.20 | 0.326 |
| Age 31 | 4.74 | 12.58 | 0.069 |
| Age 32 | 4.64 | 13.30 | 0.049* |
| Age 33 | 5.53 | 12.10 | 0.091 |
| Age 34 | 6.47 | 11.41 | 0.188 |
| Age 35 | 5.85 | 11.74 | 0.221 |
| Age 36 | 5.97 | 10.44 | 0.287 |
| Observations | 19297 | 68485 | 87782 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

Table C.20: *Statistical differences by month - Age of main shopper, infant formula*

Share of households purchasing infant formula:

| | (1) Under 31 | (2) 31+ | (3) P |
|---|---|---|---|
| 0-36 months | 0.09 | 0.07 | 0.000*** |
| Age 0 | 0.03 | 0.04 | 0.604 |
| Age 1 | 0.22 | 0.27 | 0.055 |
| Age 2 | 0.34 | 0.35 | 0.570 |
| Age 3 | 0.32 | 0.32 | 0.974 |
| Age 4 | 0.34 | 0.32 | 0.464 |
| Age 5 | 0.35 | 0.34 | 0.702 |
| Age 6 | 0.34 | 0.35 | 0.505 |
| Age 7 | 0.27 | 0.30 | 0.214 |
| Age 8 | 0.21 | 0.22 | 0.792 |
| Age 9 | 0.16 | 0.19 | 0.061 |
| Age 10 | 0.14 | 0.19 | 0.008** |
| Age 11 | 0.10 | 0.16 | 0.000*** |
| Age 12 | 0.09 | 0.14 | 0.001** |
| Age 13 | 0.05 | 0.08 | 0.008** |
| Age 14 | 0.03 | 0.03 | 0.987 |
| Age 15 | 0.02 | 0.02 | 0.756 |
| Age 16 | 0.01 | 0.01 | 0.804 |
| Age 17 | 0.01 | 0.01 | 0.960 |
| Age 18 | 0.01 | 0.01 | 0.509 |
| Age 19 | 0.01 | 0.01 | 0.413 |
| Age 20 | 0.00 | 0.01 | 0.446 |
| Age 21 | 0.00 | 0.00 | 0.300 |
| Age 22 | 0.00 | 0.00 | 0.818 |
| Age 23 | 0.01 | 0.00 | 0.172 |
| Age 24 | 0.01 | 0.00 | 0.008** |
| Age 25 | 0.01 | 0.01 | 0.747 |
| Age 26 | 0.01 | 0.00 | 0.482 |
| Age 27 | 0.00 | 0.00 | 0.485 |
| Age 28 | 0.01 | 0.00 | 0.040* |
| Age 29 | 0.01 | 0.00 | 0.011* |
| Age 30 | 0.00 | 0.00 | 0.420 |
| Age 31 | 0.00 | 0.00 | 0.982 |
| Age 32 | 0.00 | 0.00 | 0.969 |
| Age 33 | 0.01 | 0.00 | 0.022* |
| Age 34 | 0.01 | 0.00 | 0.357 |
| Age 35 | 0.00 | 0.00 | 0.782 |
| Age 36 | 0.00 | 0.00 | 0.576 |
| Observations | 19297 | 68485 | 87782 |

Amount (ml) of infant formula purchased:

| | (1) Under 31 | (2) 31+ | (3) P |
|---|---|---|---|
| 0-36 months | 34.70 | 30.53 | 0.001*** |
| Age 0 | 4.16 | 5.07 | 0.353 |
| Age 1 | 57.11 | 62.66 | 0.552 |
| Age 2 | 136.20 | 147.09 | 0.547 |
| Age 3 | 141.89 | 147.86 | 0.746 |
| Age 4 | 151.64 | 151.79 | 0.993 |
| Age 5 | 149.35 | 169.45 | 0.238 |
| Age 6 | 155.36 | 181.68 | 0.122 |
| Age 7 | 115.61 | 132.71 | 0.239 |
| Age 8 | 83.29 | 94.19 | 0.318 |
| Age 9 | 59.98 | 78.82 | 0.053 |
| Age 10 | 50.14 | 73.44 | 0.008** |
| Age 11 | 35.13 | 63.85 | 0.000*** |
| Age 12 | 29.30 | 45.89 | 0.007** |
| Age 13 | 10.50 | 19.50 | 0.019* |
| Age 14 | 4.63 | 6.78 | 0.390 |
| Age 15 | 4.20 | 5.65 | 0.512 |
| Age 16 | 3.85 | 3.61 | 0.908 |
| Age 17 | 3.95 | 3.94 | 0.997 |
| Age 18 | 3.26 | 2.52 | 0.624 |
| Age 19 | 2.49 | 2.97 | 0.814 |
| Age 20 | 1.10 | 2.28 | 0.506 |
| Age 21 | 0.00 | 0.61 | 0.402 |
| Age 22 | 0.71 | 0.65 | 0.936 |
| Age 23 | 1.93 | 0.86 | 0.286 |
| Age 24 | 2.79 | 1.15 | 0.215 |
| Age 25 | 7.42 | 1.37 | 0.006** |
| Age 26 | 4.49 | 1.05 | 0.029* |
| Age 27 | 0.44 | 1.43 | 0.467 |
| Age 28 | 3.14 | 0.78 | 0.046* |
| Age 29 | 4.67 | 0.62 | 0.015* |
| Age 30 | 2.55 | 0.98 | 0.239 |
| Age 31 | 0.50 | 0.72 | 0.797 |
| Age 32 | 0.94 | 0.68 | 0.762 |
| Age 33 | 1.60 | 0.66 | 0.426 |
| Age 34 | 2.64 | 0.88 | 0.218 |
| Age 35 | 0.04 | 0.30 | 0.606 |
| Age 36 | 1.00 | 0.05 | 0.027* |
| Observations | 19297 | 68485 | 87782 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

Table C.21: *Statistical differences by month - Age of main shopper, follow on formula*

Share of households purchasing follow on formula:

| | (1) Under 31 | (2) 31+ | (3) P |
|---|---|---|---|
| 0-36 months | 0.05 | 0.05 | 0.010* |
| Age 0 | 0.00 | 0.00 | 0.179 |
| Age 1 | 0.00 | 0.00 | 0.539 |
| Age 2 | 0.00 | 0.00 | 0.290 |
| Age 3 | 0.00 | 0.00 | 0.476 |
| Age 4 | 0.00 | 0.00 | 0.162 |
| Age 5 | 0.01 | 0.01 | 0.722 |
| Age 6 | 0.03 | 0.04 | 0.733 |
| Age 7 | 0.14 | 0.15 | 0.606 |
| Age 8 | 0.21 | 0.23 | 0.294 |
| Age 9 | 0.25 | 0.25 | 0.820 |
| Age 10 | 0.26 | 0.26 | 0.928 |
| Age 11 | 0.25 | 0.27 | 0.523 |
| Age 12 | 0.22 | 0.24 | 0.155 |
| Age 13 | 0.11 | 0.13 | 0.180 |
| Age 14 | 0.03 | 0.04 | 0.670 |
| Age 15 | 0.02 | 0.03 | 0.530 |
| Age 16 | 0.02 | 0.02 | 0.627 |
| Age 17 | 0.01 | 0.02 | 0.269 |
| Age 18 | 0.01 | 0.01 | 0.240 |
| Age 19 | 0.01 | 0.01 | 0.950 |
| Age 20 | 0.01 | 0.01 | 0.706 |
| Age 21 | 0.00 | 0.01 | 0.701 |
| Age 22 | 0.00 | 0.00 | 0.750 |
| Age 23 | 0.00 | 0.01 | 0.114 |
| Age 24 | 0.00 | 0.00 | 0.440 |
| Age 25 | 0.00 | 0.00 | 0.167 |
| Age 26 | 0.00 | 0.00 | 0.171 |
| Age 27 | 0.00 | 0.00 | 0.206 |
| Age 28 | 0.00 | 0.00 | 0.347 |
| Age 29 | 0.00 | 0.00 | 0.310 |
| Age 30 | 0.00 | 0.00 | 0.863 |
| Age 31 | 0.00 | 0.00 | 0.532 |
| Age 32 | 0.00 | 0.00 | 0.897 |
| Age 33 | 0.00 | 0.00 | 0.280 |
| Age 34 | 0.00 | 0.00 | 0.331 |
| Age 35 | 0.00 | 0.00 | 0.391 |
| Age 36 | 0.00 | 0.00 | 0.303 |
| Observations | 19297 | 68485 | 87782 |

Amount (ml) of follow on formula purchased:

| | (1) Under 31 | (2) 31+ | (3) P |
|---|---|---|---|
| 0-36 months | 20.01 | 16.91 | 0.000*** |
| Age 0 | 0.50 | 1.28 | 0.270 |
| Age 1 | 0.00 | 0.21 | 0.539 |
| Age 2 | 0.00 | 0.86 | 0.311 |
| Age 3 | 0.45 | 0.01 | 0.114 |
| Age 4 | 0.00 | 2.11 | 0.412 |
| Age 5 | 2.44 | 0.90 | 0.105 |
| Age 6 | 9.88 | 10.35 | 0.887 |
| Age 7 | 54.66 | 53.66 | 0.899 |
| Age 8 | 92.44 | 97.33 | 0.647 |
| Age 9 | 97.09 | 107.86 | 0.334 |
| Age 10 | 124.19 | 107.98 | 0.153 |
| Age 11 | 109.51 | 109.48 | 0.997 |
| Age 12 | 81.70 | 89.39 | 0.413 |
| Age 13 | 33.17 | 34.37 | 0.829 |
| Age 14 | 10.87 | 11.06 | 0.954 |
| Age 15 | 6.70 | 6.76 | 0.981 |
| Age 16 | 3.91 | 4.42 | 0.800 |
| Age 17 | 3.67 | 4.18 | 0.819 |
| Age 18 | 1.47 | 2.55 | 0.446 |
| Age 19 | 1.75 | 1.19 | 0.539 |
| Age 20 | 1.62 | 2.03 | 0.769 |
| Age 21 | 0.72 | 1.24 | 0.630 |
| Age 22 | 4.36 | 1.16 | 0.170 |
| Age 23 | 0.00 | 1.26 | 0.198 |
| Age 24 | 0.74 | 1.14 | 0.687 |
| Age 25 | 0.00 | 1.33 | 0.283 |
| Age 26 | 0.00 | 0.82 | 0.358 |
| Age 27 | 0.00 | 0.76 | 0.294 |
| Age 28 | 0.00 | 0.61 | 0.431 |
| Age 29 | 0.00 | 0.99 | 0.393 |
| Age 30 | 0.85 | 0.77 | 0.938 |
| Age 31 | 0.00 | 0.18 | 0.533 |
| Age 32 | 0.02 | 0.85 | 0.355 |
| Age 33 | 0.00 | 0.65 | 0.313 |
| Age 34 | 0.00 | 0.40 | 0.486 |
| Age 35 | 0.00 | 1.29 | 0.553 |
| Age 36 | 0.00 | 1.36 | 0.428 |
| Observations | 19297 | 68485 | 87782 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

Table C.22: *Statistical differences by month - Age of main shopper, growing up formula*

Share of households purchasing growing up formula:

| | (1) Under 31 | (2) 31+ | (3) P |
|---|---|---|---|
| 0-36 months | 0.03 | 0.05 | 0.000*** |
| Age 0 | 0.00 | 0.01 | 0.004** |
| Age 1 | 0.00 | 0.01 | 0.216 |
| Age 2 | 0.00 | 0.01 | 0.053 |
| Age 3 | 0.00 | 0.00 | 0.168 |
| Age 4 | 0.00 | 0.01 | 0.097 |
| Age 5 | 0.00 | 0.00 | 0.646 |
| Age 6 | 0.00 | 0.01 | 0.075 |
| Age 7 | 0.00 | 0.01 | 0.051 |
| Age 8 | 0.00 | 0.01 | 0.200 |
| Age 9 | 0.00 | 0.01 | 0.427 |
| Age 10 | 0.00 | 0.01 | 0.519 |
| Age 11 | 0.01 | 0.01 | 0.725 |
| Age 12 | 0.03 | 0.03 | 0.743 |
| Age 13 | 0.09 | 0.11 | 0.151 |
| Age 14 | 0.09 | 0.13 | 0.023* |
| Age 15 | 0.09 | 0.12 | 0.017* |
| Age 16 | 0.09 | 0.11 | 0.139 |
| Age 17 | 0.07 | 0.11 | 0.012* |
| Age 18 | 0.08 | 0.10 | 0.319 |
| Age 19 | 0.07 | 0.10 | 0.109 |
| Age 20 | 0.07 | 0.09 | 0.055 |
| Age 21 | 0.07 | 0.08 | 0.430 |
| Age 22 | 0.07 | 0.07 | 0.482 |
| Age 23 | 0.06 | 0.08 | 0.135 |
| Age 24 | 0.06 | 0.07 | 0.240 |
| Age 25 | 0.04 | 0.07 | 0.014* |
| Age 26 | 0.05 | 0.06 | 0.215 |
| Age 27 | 0.03 | 0.05 | 0.079 |
| Age 28 | 0.03 | 0.06 | 0.012* |
| Age 29 | 0.02 | 0.05 | 0.011* |
| Age 30 | 0.03 | 0.04 | 0.098 |
| Age 31 | 0.02 | 0.04 | 0.033* |
| Age 32 | 0.02 | 0.04 | 0.096 |
| Age 33 | 0.01 | 0.04 | 0.002** |
| Age 34 | 0.02 | 0.04 | 0.064 |
| Age 35 | 0.02 | 0.03 | 0.392 |
| Age 36 | 0.02 | 0.03 | 0.251 |
| Observations | 19297 | 68485 | 87782 |

Amount (ml) of growing up formula purchased:

| | (1) Under 31 | (2) 31+ | (3) P |
|---|---|---|---|
| 0-36 months | 8.84 | 14.36 | 0.000*** |
| Age 0 | 0.11 | 1.60 | 0.015* |
| Age 1 | 0.02 | 2.51 | 0.150 |
| Age 2 | 0.00 | 1.78 | 0.110 |
| Age 3 | 0.00 | 1.36 | 0.264 |
| Age 4 | 0.00 | 1.47 | 0.202 |
| Age 5 | 0.62 | 0.81 | 0.766 |
| Age 6 | 0.00 | 0.80 | 0.143 |
| Age 7 | 0.00 | 0.82 | 0.160 |
| Age 8 | 0.02 | 1.31 | 0.085 |
| Age 9 | 0.74 | 1.15 | 0.592 |
| Age 10 | 0.86 | 1.59 | 0.514 |
| Age 11 | 2.61 | 1.81 | 0.517 |
| Age 12 | 7.70 | 5.39 | 0.280 |
| Age 13 | 22.67 | 28.65 | 0.239 |
| Age 14 | 23.64 | 38.26 | 0.015* |
| Age 15 | 24.05 | 35.70 | 0.048* |
| Age 16 | 24.98 | 34.98 | 0.100 |
| Age 17 | 22.45 | 33.81 | 0.068 |
| Age 18 | 23.55 | 30.68 | 0.214 |
| Age 19 | 17.86 | 29.63 | 0.038* |
| Age 20 | 18.29 | 27.68 | 0.085 |
| Age 21 | 21.71 | 22.58 | 0.856 |
| Age 22 | 17.12 | 22.18 | 0.321 |
| Age 23 | 15.80 | 21.86 | 0.214 |
| Age 24 | 11.56 | 18.96 | 0.087 |
| Age 25 | 10.91 | 18.20 | 0.158 |
| Age 26 | 11.31 | 16.99 | 0.205 |
| Age 27 | 8.79 | 15.61 | 0.115 |
| Age 28 | 9.34 | 15.43 | 0.146 |
| Age 29 | 7.02 | 13.81 | 0.095 |
| Age 30 | 6.53 | 11.92 | 0.168 |
| Age 31 | 4.24 | 10.79 | 0.090 |
| Age 32 | 3.68 | 10.92 | 0.060 |
| Age 33 | 3.42 | 10.36 | 0.044* |
| Age 34 | 3.83 | 9.71 | 0.078 |
| Age 35 | 5.81 | 9.69 | 0.350 |
| Age 36 | 4.97 | 8.66 | 0.326 |
| Observations | 19297 | 68485 | 87782 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

## C.4 Baby food or drink purchases by demographics

Table C.23: *Statistical differences by month - SES*

Share of households purchasing baby food/drink:

| | (1) High Sk. | (2) Unskilled | (3) P |
|---|---|---|---|
| 0-36 months | 0.42 | 0.36 | 0.000*** |
| Age 0 | 0.08 | 0.07 | 0.093 |
| Age 1 | 0.07 | 0.05 | 0.529 |
| Age 2 | 0.09 | 0.07 | 0.442 |
| Age 3 | 0.10 | 0.09 | 0.577 |
| Age 4 | 0.13 | 0.18 | 0.070 |
| Age 5 | 0.26 | 0.33 | 0.026* |
| Age 6 | 0.40 | 0.48 | 0.014* |
| Age 7 | 0.63 | 0.63 | 0.823 |
| Age 8 | 0.70 | 0.68 | 0.354 |
| Age 9 | 0.72 | 0.73 | 0.710 |
| Age 10 | 0.76 | 0.70 | 0.063 |
| Age 11 | 0.73 | 0.67 | 0.021* |
| Age 12 | 0.71 | 0.65 | 0.046* |
| Age 13 | 0.67 | 0.63 | 0.157 |
| Age 14 | 0.64 | 0.58 | 0.027* |
| Age 15 | 0.63 | 0.52 | 0.000*** |
| Age 16 | 0.60 | 0.48 | 0.000*** |
| Age 17 | 0.57 | 0.48 | 0.002** |
| Age 18 | 0.56 | 0.44 | 0.000*** |
| Age 19 | 0.56 | 0.42 | 0.000*** |
| Age 20 | 0.52 | 0.37 | 0.000*** |
| Age 21 | 0.48 | 0.37 | 0.000*** |
| Age 22 | 0.46 | 0.37 | 0.004** |
| Age 23 | 0.45 | 0.35 | 0.002** |
| Age 24 | 0.43 | 0.36 | 0.024* |
| Age 25 | 0.41 | 0.27 | 0.000*** |
| Age 26 | 0.41 | 0.30 | 0.000*** |
| Age 27 | 0.36 | 0.26 | 0.001*** |
| Age 28 | 0.34 | 0.24 | 0.000*** |
| Age 29 | 0.31 | 0.24 | 0.019* |
| Age 30 | 0.29 | 0.23 | 0.026* |
| Age 31 | 0.30 | 0.20 | 0.000*** |
| Age 32 | 0.28 | 0.17 | 0.000*** |
| Age 33 | 0.27 | 0.17 | 0.000*** |
| Age 34 | 0.28 | 0.20 | 0.002** |
| Age 35 | 0.25 | 0.17 | 0.004** |
| Age 36 | 0.24 | 0.16 | 0.002** |
| Observations | 22577 | 15513 | 38090 |

Amount (calories) of baby food/drink purchased:

| | (1) High Sk. | (2) Unskilled | (3) P |
|---|---|---|---|
| 0-36 months | 19.93 | 20.16 | 0.628 |
| Age 0 | 2.50 | 2.62 | 0.822 |
| Age 1 | 2.56 | 1.39 | 0.223 |
| Age 2 | 3.41 | 2.26 | 0.358 |
| Age 3 | 3.87 | 2.58 | 0.349 |
| Age 4 | 3.70 | 5.28 | 0.186 |
| Age 5 | 7.00 | 11.31 | 0.010** |
| Age 6 | 13.68 | 21.33 | 0.002** |
| Age 7 | 27.70 | 33.23 | 0.080 |
| Age 8 | 39.71 | 44.48 | 0.219 |
| Age 9 | 43.90 | 54.53 | 0.010* |
| Age 10 | 48.77 | 57.04 | 0.055 |
| Age 11 | 50.76 | 52.65 | 0.668 |
| Age 12 | 47.67 | 50.42 | 0.547 |
| Age 13 | 40.96 | 45.18 | 0.322 |
| Age 14 | 36.55 | 41.46 | 0.211 |
| Age 15 | 34.03 | 34.89 | 0.816 |
| Age 16 | 30.41 | 29.89 | 0.875 |
| Age 17 | 28.22 | 27.50 | 0.826 |
| Age 18 | 27.65 | 24.28 | 0.244 |
| Age 19 | 25.98 | 20.97 | 0.077 |
| Age 20 | 21.78 | 18.34 | 0.183 |
| Age 21 | 20.90 | 18.84 | 0.436 |
| Age 22 | 19.60 | 18.10 | 0.555 |
| Age 23 | 16.97 | 15.12 | 0.405 |
| Age 24 | 16.40 | 17.34 | 0.718 |
| Age 25 | 15.39 | 11.79 | 0.092 |
| Age 26 | 14.11 | 10.70 | 0.070 |
| Age 27 | 12.25 | 8.97 | 0.066 |
| Age 28 | 12.05 | 6.71 | 0.002** |
| Age 29 | 11.01 | 7.44 | 0.038* |
| Age 30 | 10.06 | 7.75 | 0.143 |
| Age 31 | 9.96 | 5.95 | 0.007** |
| Age 32 | 9.12 | 5.02 | 0.003** |
| Age 33 | 10.17 | 5.27 | 0.002** |
| Age 34 | 9.00 | 6.19 | 0.077 |
| Age 35 | 7.39 | 5.45 | 0.148 |
| Age 36 | 6.56 | 5.08 | 0.275 |
| Observations | 22577 | 15513 | 38090 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

Table C.24: *Statistical differences by month - Birth order*

| Share of households purchasing baby food/drink: | (1) 1st born | (2) later-born | (3) P |
|---|---|---|---|
| 0-36 months | 0.42 | 0.37 | 0.000*** |
| Age 0 | 0.02 | 0.11 | 0.000*** |
| Age 1 | 0.02 | 0.09 | 0.000*** |
| Age 2 | 0.02 | 0.11 | 0.000*** |
| Age 3 | 0.04 | 0.12 | 0.000*** |
| Age 4 | 0.10 | 0.20 | 0.000*** |
| Age 5 | 0.22 | 0.34 | 0.000*** |
| Age 6 | 0.40 | 0.50 | 0.000*** |
| Age 7 | 0.57 | 0.68 | 0.000*** |
| Age 8 | 0.68 | 0.72 | 0.027* |
| Age 9 | 0.71 | 0.75 | 0.074 |
| Age 10 | 0.71 | 0.74 | 0.047* |
| Age 11 | 0.69 | 0.72 | 0.082 |
| Age 12 | 0.68 | 0.69 | 0.755 |
| Age 13 | 0.65 | 0.66 | 0.933 |
| Age 14 | 0.63 | 0.61 | 0.360 |
| Age 15 | 0.62 | 0.56 | 0.001** |
| Age 16 | 0.60 | 0.52 | 0.000*** |
| Age 17 | 0.58 | 0.49 | 0.000*** |
| Age 18 | 0.55 | 0.47 | 0.000*** |
| Age 19 | 0.56 | 0.44 | 0.000*** |
| Age 20 | 0.52 | 0.41 | 0.000*** |
| Age 21 | 0.50 | 0.37 | 0.000*** |
| Age 22 | 0.51 | 0.35 | 0.000*** |
| Age 23 | 0.46 | 0.35 | 0.000*** |
| Age 24 | 0.45 | 0.32 | 0.000*** |
| Age 25 | 0.43 | 0.30 | 0.000*** |
| Age 26 | 0.43 | 0.30 | 0.000*** |
| Age 27 | 0.40 | 0.27 | 0.000*** |
| Age 28 | 0.37 | 0.25 | 0.000*** |
| Age 29 | 0.36 | 0.24 | 0.000*** |
| Age 30 | 0.34 | 0.21 | 0.000*** |
| Age 31 | 0.32 | 0.20 | 0.000*** |
| Age 32 | 0.29 | 0.20 | 0.000*** |
| Age 33 | 0.30 | 0.18 | 0.000*** |
| Age 34 | 0.30 | 0.19 | 0.000*** |
| Age 35 | 0.27 | 0.18 | 0.000*** |
| Age 36 | 0.26 | 0.16 | 0.000*** |
| Observations | 38827 | 48955 | 87782 |

| Amount (calories) of baby food/drink purchased: | (1) 1st born | (2) later-born | (3) P |
|---|---|---|---|
| 0-36 months | 20.78 | 19.28 | 0.000*** |
| Age 0 | 0.43 | 2.90 | 0.000*** |
| Age 1 | 0.71 | 2.32 | 0.001** |
| Age 2 | 0.53 | 3.53 | 0.000*** |
| Age 3 | 1.55 | 3.30 | 0.012* |
| Age 4 | 2.88 | 4.85 | 0.004** |
| Age 5 | 6.22 | 11.98 | 0.000*** |
| Age 6 | 13.50 | 21.63 | 0.000*** |
| Age 7 | 24.67 | 37.17 | 0.000*** |
| Age 8 | 40.35 | 50.01 | 0.000*** |
| Age 9 | 48.55 | 54.20 | 0.046* |
| Age 10 | 50.70 | 56.86 | 0.033* |
| Age 11 | 49.39 | 54.19 | 0.106 |
| Age 12 | 45.38 | 51.66 | 0.030* |
| Age 13 | 40.22 | 44.11 | 0.141 |
| Age 14 | 38.28 | 39.25 | 0.711 |
| Age 15 | 34.38 | 33.35 | 0.665 |
| Age 16 | 32.54 | 29.35 | 0.169 |
| Age 17 | 30.30 | 25.68 | 0.034* |
| Age 18 | 28.02 | 24.16 | 0.053 |
| Age 19 | 25.62 | 21.40 | 0.026* |
| Age 20 | 23.27 | 18.16 | 0.004** |
| Age 21 | 22.03 | 17.06 | 0.004** |
| Age 22 | 21.07 | 15.66 | 0.001*** |
| Age 23 | 18.66 | 13.45 | 0.000*** |
| Age 24 | 18.45 | 13.03 | 0.000*** |
| Age 25 | 16.44 | 11.07 | 0.000*** |
| Age 26 | 15.41 | 10.31 | 0.000*** |
| Age 27 | 13.67 | 9.37 | 0.000*** |
| Age 28 | 12.33 | 8.82 | 0.003** |
| Age 29 | 11.31 | 8.98 | 0.039* |
| Age 30 | 10.81 | 7.77 | 0.005** |
| Age 31 | 9.76 | 6.85 | 0.004** |
| Age 32 | 9.04 | 6.18 | 0.002** |
| Age 33 | 9.12 | 6.37 | 0.006** |
| Age 34 | 8.77 | 6.18 | 0.009** |
| Age 35 | 8.21 | 5.48 | 0.002** |
| Age 36 | 7.37 | 4.54 | 0.001*** |
| Observations | 38827 | 48955 | 87782 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

Table C.25: *Statistical differences by month - BMI*

| Share of households purchasing baby food/drink: | | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| | Underw/Norm | Obese | P |
| 0-36 months | 0.42 | 0.37 | 0.000*** |
| Age 0 | 0.08 | 0.06 | 0.010** |
| Age 1 | 0.08 | 0.07 | 0.547 |
| Age 2 | 0.08 | 0.05 | 0.085 |
| Age 3 | 0.08 | 0.08 | 0.748 |
| Age 4 | 0.15 | 0.18 | 0.188 |
| Age 5 | 0.24 | 0.34 | 0.000*** |
| Age 6 | 0.42 | 0.47 | 0.083 |
| Age 7 | 0.62 | 0.63 | 0.704 |
| Age 8 | 0.70 | 0.71 | 0.705 |
| Age 9 | 0.73 | 0.74 | 0.632 |
| Age 10 | 0.74 | 0.72 | 0.328 |
| Age 11 | 0.73 | 0.69 | 0.056 |
| Age 12 | 0.71 | 0.64 | 0.013* |
| Age 13 | 0.67 | 0.60 | 0.010* |
| Age 14 | 0.63 | 0.60 | 0.247 |
| Age 15 | 0.62 | 0.54 | 0.004** |
| Age 16 | 0.60 | 0.54 | 0.028* |
| Age 17 | 0.56 | 0.48 | 0.002** |
| Age 18 | 0.55 | 0.45 | 0.000*** |
| Age 19 | 0.54 | 0.45 | 0.001** |
| Age 20 | 0.50 | 0.40 | 0.000*** |
| Age 21 | 0.49 | 0.40 | 0.001*** |
| Age 22 | 0.45 | 0.41 | 0.106 |
| Age 23 | 0.43 | 0.36 | 0.009** |
| Age 24 | 0.44 | 0.32 | 0.000*** |
| Age 25 | 0.39 | 0.32 | 0.010** |
| Age 26 | 0.38 | 0.35 | 0.181 |
| Age 27 | 0.35 | 0.27 | 0.003** |
| Age 28 | 0.33 | 0.28 | 0.076 |
| Age 29 | 0.32 | 0.27 | 0.074 |
| Age 30 | 0.29 | 0.22 | 0.003** |
| Age 31 | 0.28 | 0.22 | 0.013* |
| Age 32 | 0.25 | 0.19 | 0.028* |
| Age 33 | 0.25 | 0.17 | 0.001** |
| Age 34 | 0.27 | 0.18 | 0.000*** |
| Age 35 | 0.24 | 0.17 | 0.003** |
| Age 36 | 0.22 | 0.16 | 0.003** |
| Observations | 35708 | 16817 | 52525 |

| Amount (calories) of baby food/drink purchased: | | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| | Underw/Norm | Obese | P |
| 0-36 months | 20.10 | 21.23 | 0.009** |
| Age 0 | 2.21 | 1.98 | 0.599 |
| Age 1 | 2.05 | 2.17 | 0.882 |
| Age 2 | 2.59 | 2.02 | 0.570 |
| Age 3 | 2.28 | 3.28 | 0.330 |
| Age 4 | 3.70 | 5.66 | 0.059 |
| Age 5 | 7.22 | 12.01 | 0.002** |
| Age 6 | 15.19 | 19.93 | 0.023* |
| Age 7 | 28.85 | 33.64 | 0.087 |
| Age 8 | 41.76 | 50.69 | 0.014* |
| Age 9 | 47.55 | 58.66 | 0.004** |
| Age 10 | 52.33 | 60.25 | 0.051 |
| Age 11 | 50.90 | 53.14 | 0.583 |
| Age 12 | 48.51 | 48.45 | 0.988 |
| Age 13 | 43.01 | 42.86 | 0.969 |
| Age 14 | 38.40 | 43.66 | 0.170 |
| Age 15 | 35.44 | 35.37 | 0.985 |
| Age 16 | 31.84 | 36.45 | 0.171 |
| Age 17 | 28.46 | 29.85 | 0.656 |
| Age 18 | 27.17 | 26.67 | 0.858 |
| Age 19 | 24.74 | 21.93 | 0.298 |
| Age 20 | 21.71 | 20.51 | 0.644 |
| Age 21 | 20.15 | 19.63 | 0.826 |
| Age 22 | 18.86 | 18.78 | 0.973 |
| Age 23 | 17.10 | 14.38 | 0.185 |
| Age 24 | 15.68 | 16.27 | 0.788 |
| Age 25 | 14.45 | 11.81 | 0.163 |
| Age 26 | 12.69 | 13.50 | 0.677 |
| Age 27 | 12.22 | 11.02 | 0.484 |
| Age 28 | 11.37 | 10.10 | 0.468 |
| Age 29 | 11.08 | 9.07 | 0.198 |
| Age 30 | 9.53 | 9.15 | 0.812 |
| Age 31 | 8.86 | 7.19 | 0.228 |
| Age 32 | 7.31 | 6.98 | 0.791 |
| Age 33 | 8.43 | 5.74 | 0.046* |
| Age 34 | 8.30 | 6.51 | 0.196 |
| Age 35 | 7.93 | 5.11 | 0.024* |
| Age 36 | 6.43 | 5.01 | 0.209 |
| Observations | 35708 | 16817 | 52525 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

Table C.26: *Statistical differences by month - Ethnicity*

| Share of households purchasing baby food/drink: | | | | Amount (calories) of baby food/drink purchased: | | | |
|---|---|---|---|---|---|---|---|
| | (1) White+Oth | (2) Asian+Black | (3) P | | (1) White+Oth | (2) Asian+Black | (3) P |
| 0-36 months | 0.40 | 0.31 | 0.000*** | 0-36 months | 20.42 | 16.25 | 0.000*** |
| Age 0 | 0.07 | 0.07 | 0.612 | Age 0 | 1.67 | 2.50 | 0.064 |
| Age 1 | 0.06 | 0.06 | 0.977 | Age 1 | 1.67 | 0.57 | 0.166 |
| Age 2 | 0.06 | 0.12 | 0.008** | Age 2 | 2.04 | 2.53 | 0.637 |
| Age 3 | 0.09 | 0.05 | 0.102 | Age 3 | 2.52 | 2.03 | 0.670 |
| Age 4 | 0.16 | 0.09 | 0.012* | Age 4 | 4.10 | 2.23 | 0.089 |
| Age 5 | 0.30 | 0.17 | 0.000*** | Age 5 | 9.42 | 7.31 | 0.271 |
| Age 6 | 0.47 | 0.35 | 0.000*** | Age 6 | 17.92 | 16.02 | 0.433 |
| Age 7 | 0.64 | 0.51 | 0.000*** | Age 7 | 31.98 | 24.37 | 0.023* |
| Age 8 | 0.71 | 0.61 | 0.001*** | Age 8 | 46.13 | 39.12 | 0.092 |
| Age 9 | 0.74 | 0.66 | 0.008** | Age 9 | 52.48 | 43.67 | 0.049* |
| Age 10 | 0.74 | 0.65 | 0.005** | Age 10 | 55.20 | 43.96 | 0.013* |
| Age 11 | 0.72 | 0.61 | 0.000*** | Age 11 | 53.09 | 42.62 | 0.025* |
| Age 12 | 0.70 | 0.60 | 0.001*** | Age 12 | 50.35 | 35.66 | 0.001** |
| Age 13 | 0.66 | 0.59 | 0.011* | Age 13 | 42.92 | 37.18 | 0.162 |
| Age 14 | 0.63 | 0.54 | 0.002** | Age 14 | 39.37 | 34.45 | 0.227 |
| Age 15 | 0.60 | 0.53 | 0.037* | Age 15 | 34.24 | 30.73 | 0.346 |
| Age 16 | 0.56 | 0.48 | 0.006** | Age 16 | 31.42 | 26.15 | 0.145 |
| Age 17 | 0.54 | 0.46 | 0.022* | Age 17 | 28.27 | 24.02 | 0.215 |
| Age 18 | 0.52 | 0.43 | 0.005** | Age 18 | 26.18 | 23.82 | 0.451 |
| Age 19 | 0.51 | 0.40 | 0.001** | Age 19 | 23.58 | 21.18 | 0.420 |
| Age 20 | 0.47 | 0.35 | 0.000*** | Age 20 | 20.90 | 16.75 | 0.135 |
| Age 21 | 0.44 | 0.33 | 0.001*** | Age 21 | 19.50 | 17.24 | 0.408 |
| Age 22 | 0.43 | 0.33 | 0.001** | Age 22 | 18.39 | 15.12 | 0.198 |
| Age 23 | 0.41 | 0.30 | 0.000*** | Age 23 | 16.10 | 12.45 | 0.106 |
| Age 24 | 0.39 | 0.29 | 0.001** | Age 24 | 15.79 | 11.73 | 0.093 |
| Age 25 | 0.36 | 0.28 | 0.007** | Age 25 | 13.92 | 8.84 | 0.015* |
| Age 26 | 0.37 | 0.22 | 0.000*** | Age 26 | 12.92 | 8.81 | 0.038* |
| Age 27 | 0.33 | 0.24 | 0.003** | Age 27 | 11.40 | 9.48 | 0.291 |
| Age 28 | 0.32 | 0.20 | 0.000*** | Age 28 | 10.65 | 7.56 | 0.088 |
| Age 29 | 0.30 | 0.19 | 0.000*** | Age 29 | 10.46 | 6.03 | 0.009** |
| Age 30 | 0.28 | 0.15 | 0.000*** | Age 30 | 9.36 | 6.26 | 0.063 |
| Age 31 | 0.26 | 0.15 | 0.000*** | Age 31 | 8.45 | 4.60 | 0.011* |
| Age 32 | 0.25 | 0.13 | 0.000*** | Age 32 | 7.75 | 3.91 | 0.006** |
| Age 33 | 0.24 | 0.11 | 0.000*** | Age 33 | 8.01 | 3.07 | 0.001** |
| Age 34 | 0.25 | 0.11 | 0.000*** | Age 34 | 7.73 | 2.81 | 0.001*** |
| Age 35 | 0.23 | 0.10 | 0.000*** | Age 35 | 6.89 | 3.59 | 0.013* |
| Age 36 | 0.21 | 0.12 | 0.001*** | Age 36 | 5.91 | 3.10 | 0.021* |
| Observations | 77773 | 10008 | 87781 | Observations | 77773 | 10008 | 87781 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

Table C.27: *Statistical differences by month - Age of main shopper*

Share of households purchasing baby food/drink:

| | (1) Under 31 | (2) 31+ | (3) P |
|---|---|---|---|
| 0-36 months | 0.35 | 0.41 | 0.000*** |
| Age 0 | 0.05 | 0.07 | 0.006** |
| Age 1 | 0.04 | 0.06 | 0.051 |
| Age 2 | 0.04 | 0.08 | 0.007** |
| Age 3 | 0.06 | 0.09 | 0.051 |
| Age 4 | 0.15 | 0.15 | 0.838 |
| Age 5 | 0.28 | 0.28 | 0.967 |
| Age 6 | 0.48 | 0.44 | 0.082 |
| Age 7 | 0.62 | 0.63 | 0.512 |
| Age 8 | 0.71 | 0.70 | 0.590 |
| Age 9 | 0.71 | 0.74 | 0.116 |
| Age 10 | 0.67 | 0.75 | 0.000*** |
| Age 11 | 0.63 | 0.73 | 0.000*** |
| Age 12 | 0.62 | 0.71 | 0.000*** |
| Age 13 | 0.57 | 0.68 | 0.000*** |
| Age 14 | 0.56 | 0.64 | 0.001*** |
| Age 15 | 0.53 | 0.61 | 0.001*** |
| Age 16 | 0.47 | 0.58 | 0.000*** |
| Age 17 | 0.46 | 0.55 | 0.000*** |
| Age 18 | 0.43 | 0.53 | 0.000*** |
| Age 19 | 0.41 | 0.52 | 0.000*** |
| Age 20 | 0.38 | 0.48 | 0.000*** |
| Age 21 | 0.35 | 0.45 | 0.000*** |
| Age 22 | 0.36 | 0.44 | 0.002** |
| Age 23 | 0.32 | 0.42 | 0.000*** |
| Age 24 | 0.29 | 0.40 | 0.000*** |
| Age 25 | 0.26 | 0.38 | 0.000*** |
| Age 26 | 0.26 | 0.38 | 0.000*** |
| Age 27 | 0.26 | 0.34 | 0.001** |
| Age 28 | 0.23 | 0.32 | 0.000*** |
| Age 29 | 0.20 | 0.31 | 0.000*** |
| Age 30 | 0.17 | 0.28 | 0.000*** |
| Age 31 | 0.19 | 0.26 | 0.005** |
| Age 32 | 0.14 | 0.25 | 0.000*** |
| Age 33 | 0.15 | 0.24 | 0.000*** |
| Age 34 | 0.16 | 0.25 | 0.000*** |
| Age 35 | 0.11 | 0.23 | 0.000*** |
| Age 36 | 0.12 | 0.21 | 0.000*** |
| Observations | 19297 | 68485 | 87782 |

Amount (calories) of baby food/drink purchased:

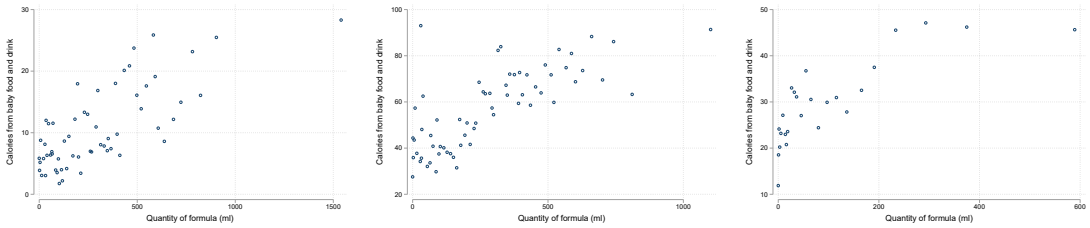
| | (1) Under 31 | (2) 31+ | (3) P |
|---|---|---|---|
| 0-36 months | 16.11 | 21.03 | 0.000*** |
| Age 0 | 0.95 | 2.05 | 0.001*** |
| Age 1 | 1.04 | 1.74 | 0.204 |
| Age 2 | 0.76 | 2.59 | 0.012* |
| Age 3 | 1.23 | 2.93 | 0.029* |
| Age 4 | 3.96 | 3.88 | 0.909 |
| Age 5 | 9.44 | 9.09 | 0.787 |
| Age 6 | 18.19 | 17.52 | 0.692 |
| Age 7 | 26.96 | 32.73 | 0.014* |
| Age 8 | 38.74 | 47.73 | 0.003** |
| Age 9 | 45.51 | 53.60 | 0.012* |
| Age 10 | 46.26 | 56.58 | 0.002** |
| Age 11 | 39.10 | 56.21 | 0.000*** |
| Age 12 | 36.91 | 52.57 | 0.000*** |
| Age 13 | 34.26 | 44.83 | 0.001*** |
| Age 14 | 28.72 | 41.99 | 0.000*** |
| Age 15 | 24.77 | 36.60 | 0.000*** |
| Age 16 | 20.59 | 33.87 | 0.000*** |
| Age 17 | 20.23 | 29.94 | 0.000*** |
| Age 18 | 19.34 | 27.73 | 0.001*** |
| Age 19 | 15.67 | 25.41 | 0.000*** |
| Age 20 | 14.61 | 22.02 | 0.001*** |
| Age 21 | 14.35 | 20.56 | 0.003** |
| Age 22 | 13.67 | 19.13 | 0.006** |
| Age 23 | 11.10 | 16.83 | 0.001** |
| Age 24 | 10.50 | 16.51 | 0.002** |
| Age 25 | 8.29 | 14.53 | 0.000*** |
| Age 26 | 7.70 | 13.54 | 0.000*** |
| Age 27 | 7.45 | 12.02 | 0.002** |
| Age 28 | 5.20 | 11.41 | 0.000*** |
| Age 29 | 5.12 | 10.92 | 0.000*** |
| Age 30 | 5.06 | 9.80 | 0.001*** |
| Age 31 | 4.86 | 8.61 | 0.005** |
| Age 32 | 4.24 | 7.89 | 0.003** |
| Age 33 | 3.67 | 8.17 | 0.001*** |
| Age 34 | 3.87 | 7.78 | 0.003** |
| Age 35 | 2.36 | 7.26 | 0.000*** |
| Age 36 | 1.84 | 6.24 | 0.000*** |
| Observations | 19297 | 68485 | 87782 |

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a child aged 0-36 months but purchasing formula, baby food and drinks at some point during this period.*

## C.5 Contemporaneous purchases: formula and baby food/drinks

Figure C.5: *Quantities of formula (ml) against baby food/drinks (calories) by age of child*

(a) 0-6 months (b) 7-12 months (c) 13-36 months

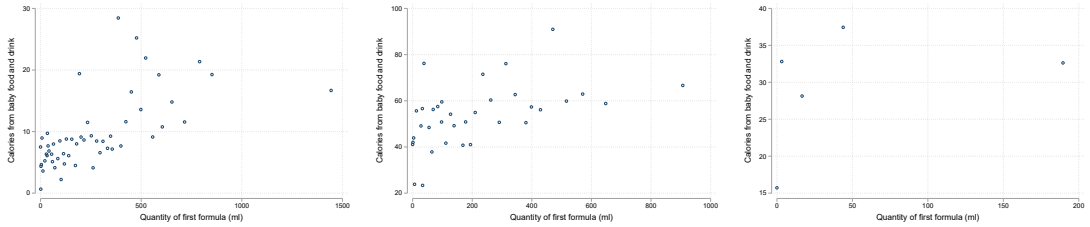



Correlation coefficients (p-values):

0.19 (0.000) 0.33 (0.000) 0.21 (0.000)

*A. Infant formula*

(d) 0-6 months (e) 7-12 months (f) 13-36 months

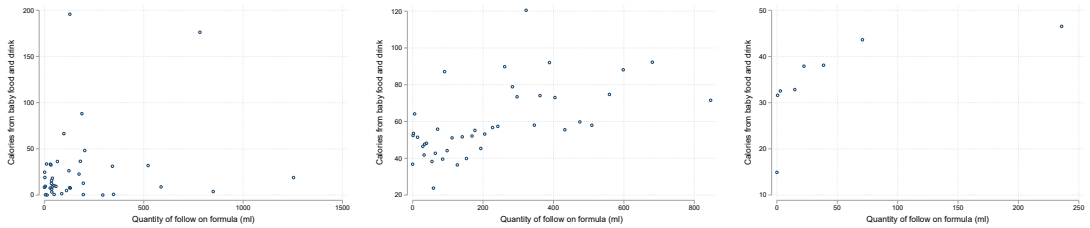



Correlation coefficients (p-values):

0.13 (0.000) 0.13 (0.000) 0.04 (0.000)

*B. Follow on formula*

(g) 0-6 months (h) 7-12 months (i) 13-36 months

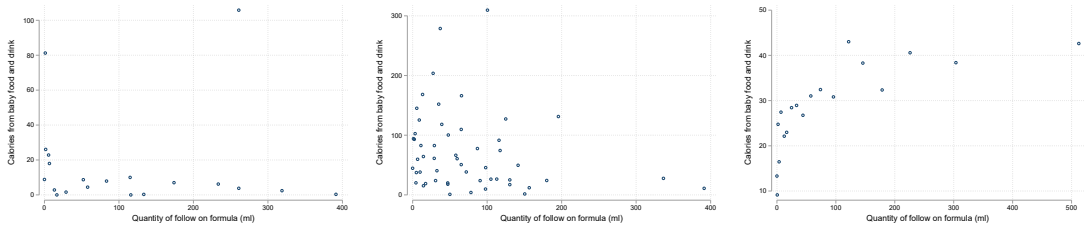



Correlation coefficients (p-values):

0.11 (0.000) 0.25 (0.000) 0.14 (0.000)

*C. Growing up formula*

(j) 0-6 months (k) 7-12 months (l) 13-36 months




Correlation coefficients (p-values):

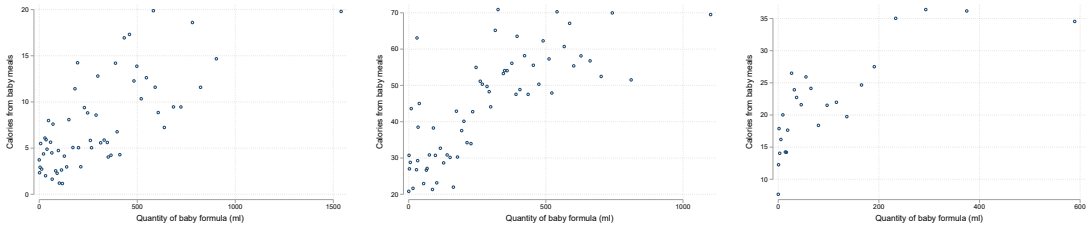
0.03 (0.091) 0.04 (0.016) 0.16 (0.000)

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. Quantity of formula (ml) (x-axis) is grouped into 100 equal-sized bins, and means of the formula and food/drinks purchases within each bin are computed and plotted. Calories are calculated using product classification based on maffcode.*

Figures C.7 to C.11 show contemporaneous purchasing relationships as in Section 4.1.3 now for each baby product sub-category (baby meals, baby finger foods and baby drinks).

Figure C.6: *Quantity formula on calories baby meals by age of child*

(a) 0-6 months (b) 7-12 months (c) 13-24 months

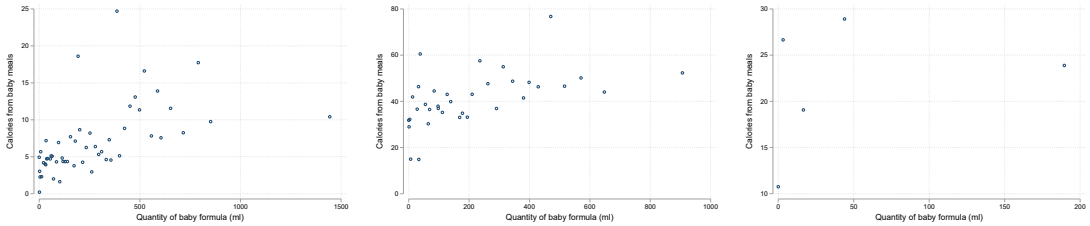



*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. Quantity of formula (ml) (x-axis) is grouped into 100 equal-sized bins, and means of the formula and baby meals purchases within each bin are computed and plotted. Calories are calculated using product classification based on maffcode.*

Figure C.7: *Quantity formula type on calories baby meals by age of child*

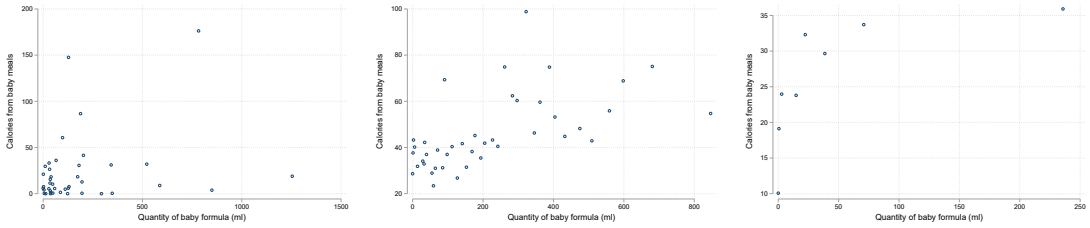
*Infant formula*

(a) 0-6 months (b) 7-12 months (c) 13-24 months



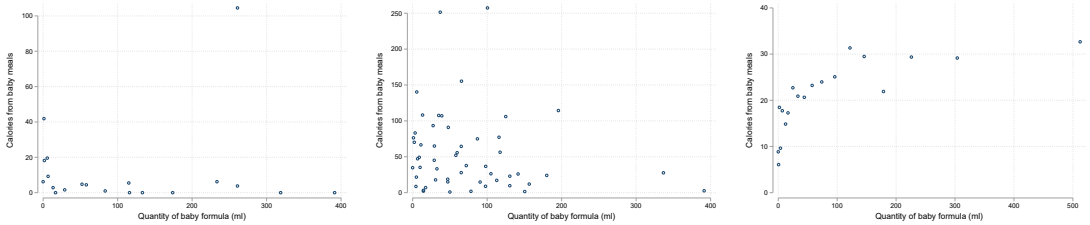

*Follow on formula*

(d) 0-6 months (e) 7-12 months (f) 13-24 months




*Growing up formula*

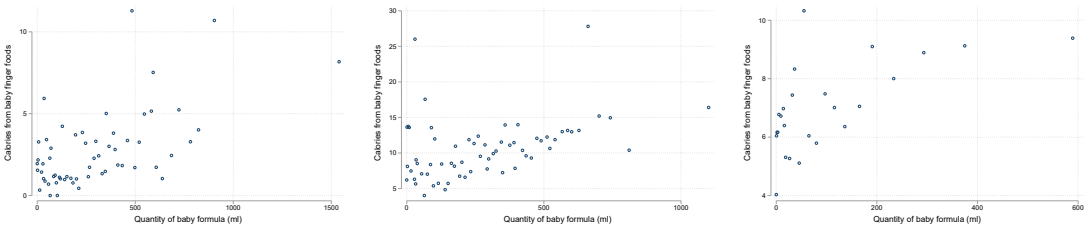
(g) 0-6 months (h) 7-12 months (i) 13-24 months




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. Quantity of formula (ml) (x-axis) is grouped into 100 equal-sized bins, and means of the formula and baby meals purchases within each bin are computed and plotted. Calories are calculated using product classification based on maffcode.*

Figure C.8: *Quantity formula on calories baby finger food by age of baby*

(a) 0-6 months (b) 7-12 months (c) 13-24 months

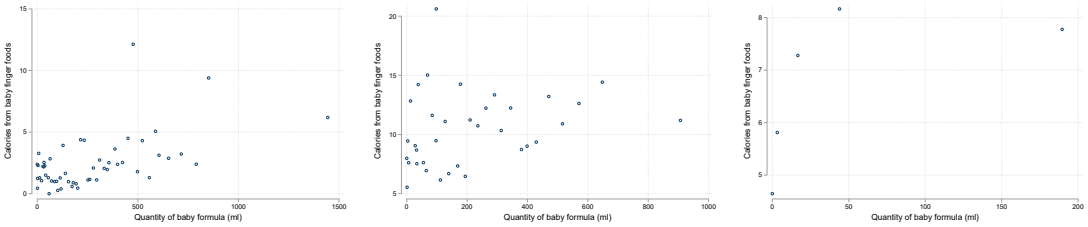



*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. Quantity of formula (ml) (x-axis) is grouped into 100 equal-sized bins, and means of the formula and baby finger food purchases within each bin are computed and plotted. Calories are calculated using product classification based on maffcode.*

Figure C.9: *Quantity formula type on calories baby finger food by age of baby*

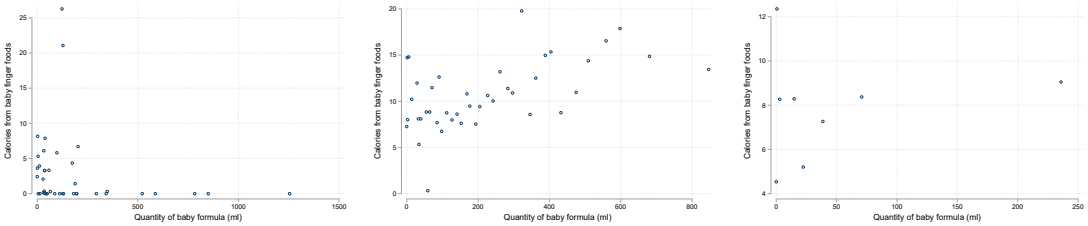
*Infant formula*

(a) 0-6 months (b) 7-12 months (c) 13-24 months



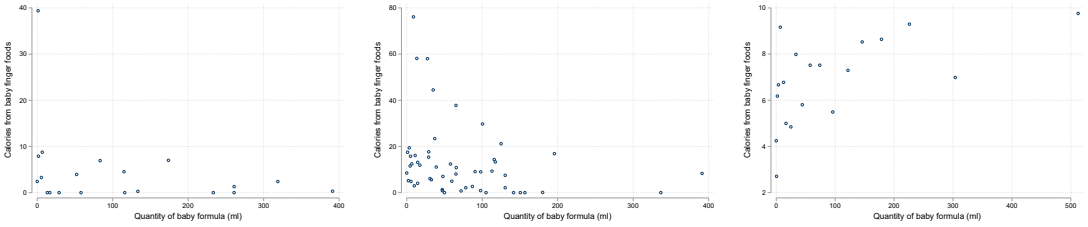

*Follow on formula*

(d) 0-6 months (e) 7-12 months (f) 13-24 months




*Growing up formula*

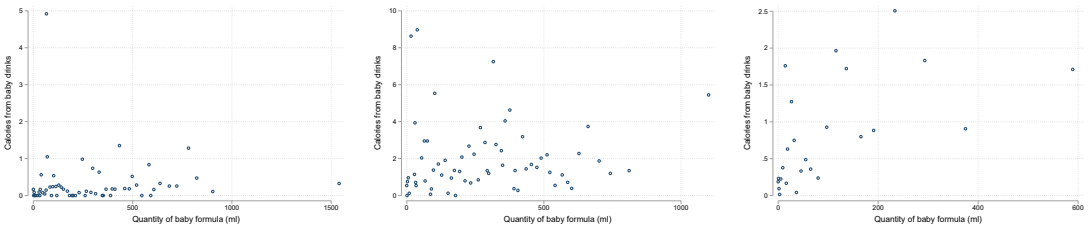
(g) 0-6 months (h) 7-12 months (i) 13-24 months




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. Quantity of formula (ml) (x-axis) is grouped into 100 equal-sized bins, and means of the formula and baby finger food purchases within each bin are computed and plotted. Calories are calculated using product classification based on maffcode.*

Figure C.10: *Quantity formula on calories baby drinks by age of baby*

(a) 0-6 months (b) 6-12 months (c) 12-24 months

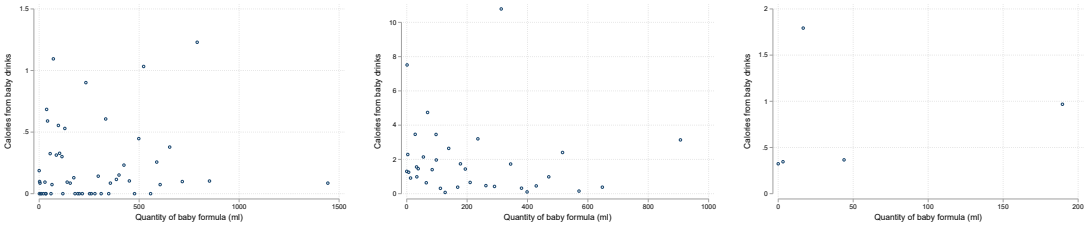



*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. Quantity of formula (ml) (x-axis) is grouped into 100 equal-sized bins, and means of the formula and baby drinks purchases within each bin are computed and plotted. Calories are calculated using product classification based on maffcode.*

Figure C.11: *Quantity formula type on calories baby drinks by age of baby*

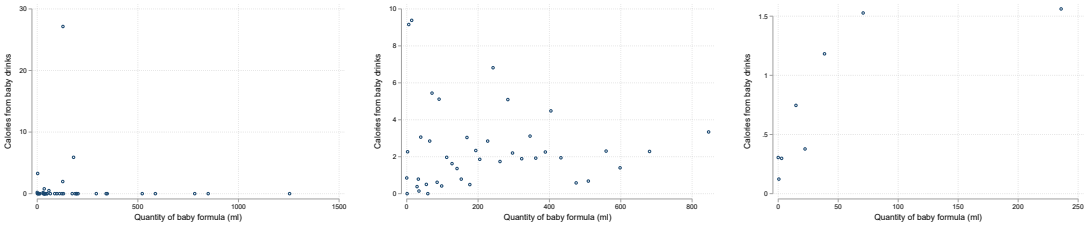
*Infant formula*

(a) 0-6 months (b) 6-12 months (c) 12-24 months



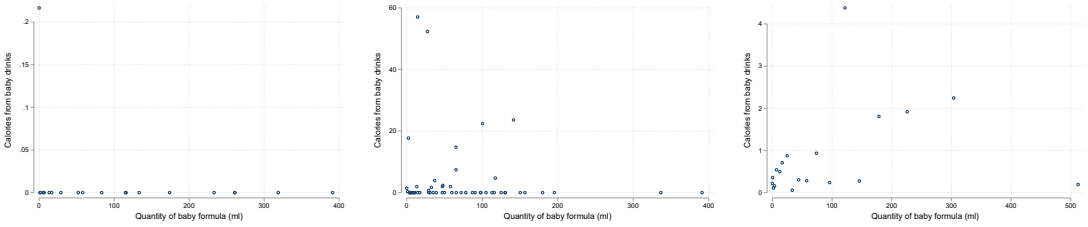

*Follow on formula*

(d) 0-6 months (e) 6-12 months (f) 12-24 months




*Growing up formula*

(g) 0-6 months (h) 6-12 months (i) 12-24 months




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months). For details see Appendix A. Quantity of formula (ml) (x-axis) is grouped into 100 equal-sized bins, and means of the formula and baby drinks purchases within each bin are computed and plotted. Calories are calculated using product classification based on maffcode.*

## C.6 Producers' daily recommendation

Recommendations are not explicit and NHS guidance states that "newborn babies need quite small amounts of formula to start with. By the end of their first week, most will need around 150 to 200ml per kilo of their weight a day until they're 6 months old. This amount will vary from baby to baby". Cow & gate provide guidelines on the amounts of their products that babies will need, which is summarised in Table C.28 (other brands such as Aptamil provide almost identical guidelines). Up to the age of 6 months, this assumes that babies are being purely formula fed and, after this time it assumes they continue to be formula fed but increasingly also consume other food products.

Table C.28: *Recommended formula consumption*

| | Recommendations | | |
|---|---|---|---|
| Age of child | Amount per feed | Feeds per 24 hours | Amount per day |
| Up to 2 weeks | 90ml | 6 | 540ml |
| 2-4 weeks | 120 ml | 5 | 600 ml |
| 4-8 weeks | 150 ml | 5 | 750 ml |
| 8-12 weeks | 180 ml | 5 | 900 ml |
| 3-4 months | 180 ml | 5 | 900 ml |
| 4-5 months | 210 ml | 5 | 1100 ml |
| 5-6 months | 210 ml | 5 | 1100 ml |
| 6-12 months | 210ml | 3 | 660ml |
| 1 year + | 150ml | 2 | 300ml |

*Notes:Cow & gate provided guidelines.*

## C.7 Childcare providers

The Table is provided by the Department of Education and constructed using the 'Childcare and early years survey of parents 2019'. https://www.gov.uk/government/statistics/childcare-and-early-years-survey-of-parents-2019

Figure C.12: *Childcare providers by child age (England, 2019, source: DoE)*

| | Age of child | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 0-2 | 3-4 | All |
| **Use of childcare** | % | % | % | % | % | % | % | % |
| *Base: All children aged 0 to 4* | *437* | *1,125* | *1,207* | *1,136* | *1,152* | *2,769* | *2,288* | *5,057* |
| **Any childcare** | **32** | **62** | **71** | **89** | **95** | **61** | **92** | **76** |
| | | | | | | | | |
| **Formal providers** | **11** | **36** | **57** | **84** | **93** | **41** | **89** | **64** |
| Nursery school | 2 | 4 | 13 | 20 | 18 | 8 | 19 | 13 |
| Nursery class attached to a primary or infants' school | 0 | 1 | 3 | 18 | 20 | 1 | 19 | 10 |
| Reception class | 0 | 0 | 0 | 0 | 28 | 0 | 14 | 7 |
| Day nursery | 5 | 19 | 28 | 31 | 17 | 20 | 24 | 22 |
| Playgroup or pre-school | 1 | 2 | 7 | 13 | 10 | 4 | 12 | 8 |
| Breakfast club | 0 | * | 0 | 1 | 4 | * | 2 | 1 |
| After-school club or activity | 0 | * | 1 | 2 | 8 | 1 | 5 | 3 |
| Childminder | 2 | 9 | 6 | 6 | 4 | 7 | 5 | 6 |
| Nanny or au pair | 1 | 1 | * | 1 | * | 1 | 1 | 1 |
| | | | | | | | | |
| **Informal providers** | **24** | **43** | **35** | **32** | **27** | **37** | **30** | **33** |
| Grandparent | 22 | 38 | 30 | 28 | 22 | 32 | 25 | 29 |
| Older sibling | 0 | * | 1 | 1 | 1 | * | 1 | * |
| Another relative | 4 | 7 | 4 | 4 | 5 | 5 | 4 | 5 |
| Friend or neighbour | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | |
| **No childcare used** | **68** | **38** | **29** | **11** | **5** | **39** | **8** | **24** |

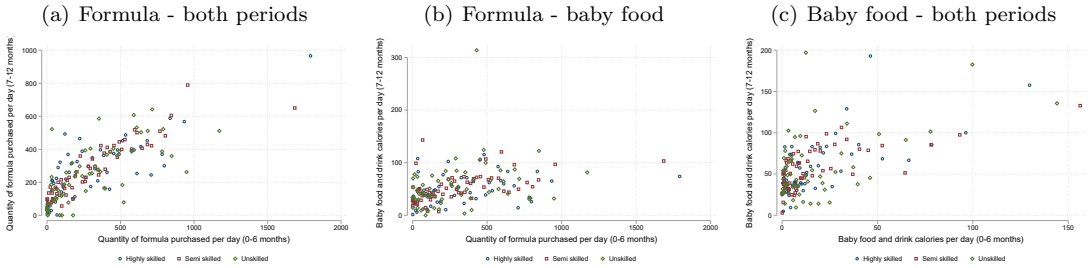
***Notes:*** The use of an asterisk in a table denotes a percentage value of less than 0.5 but greater than zero.

# D Appendix - Subsequent purchases

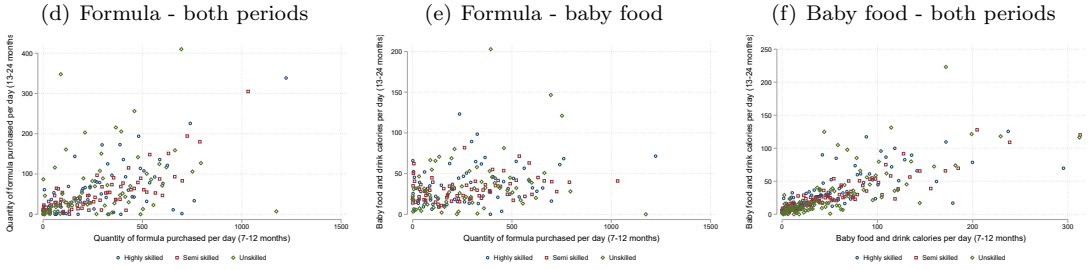
We show Figures analogue to those in Section 5 but now separately for demographic characteristics considered: (i) the socio-economic status (SES) of the household head, (ii) whether the child aged 0-36 months in the household at the time of purchase is first-born or not, and (iii) the body mass index (BMI) of the main shopper, (vi) ethnicity of the main shopper, and (v) age of the main shopper.

### Socioeconomic status

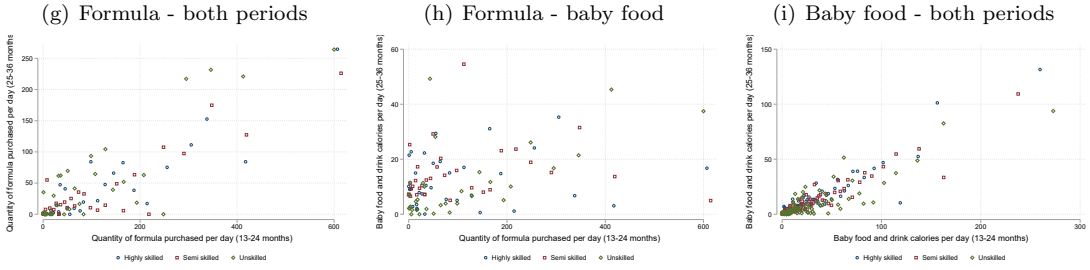
Figure D.1: *Sequential formula purchases by socioeconomic status*
*0-6 month on 7-12 months*




*7-12 month on 13-24 months*




*13-24 month on 25-36 months*




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a 0-36 months-old in this period but observed to purchase formula, baby food or drinks. For details see Appendix A. Quantity of baby food/drinks (calories) (x-Axis) purchased within a specific child-age band is grouped into 100 equal-sized bins, and means of calorie purchases within each bin are computed and plotted against means of calorie purchases for the subsequent child-age band. Calories are calculated using product classification based on maffcode.*

## Birth order

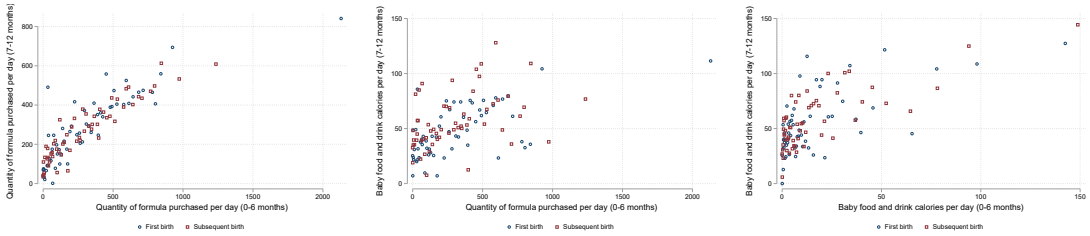
Figure D.2: *Sequential formula purchases by birth order*

*0-6 month on 7-12 months*

(a) Formula - both periods

(b) Formula - baby food

(c) Baby food - both periods

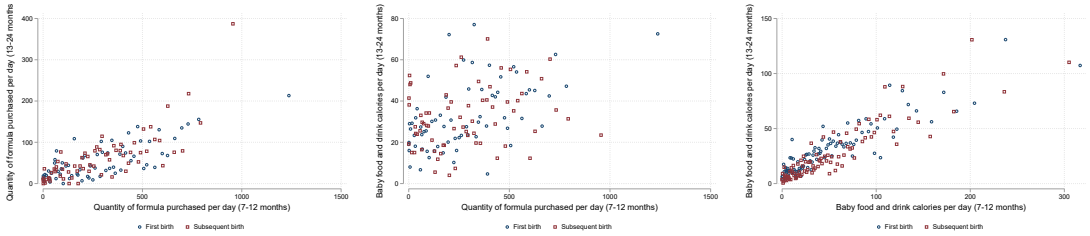



*7-12 month on 13-24 months*

(d) Formula - both periods

(e) Formula - baby food

(f) Baby food - both periods

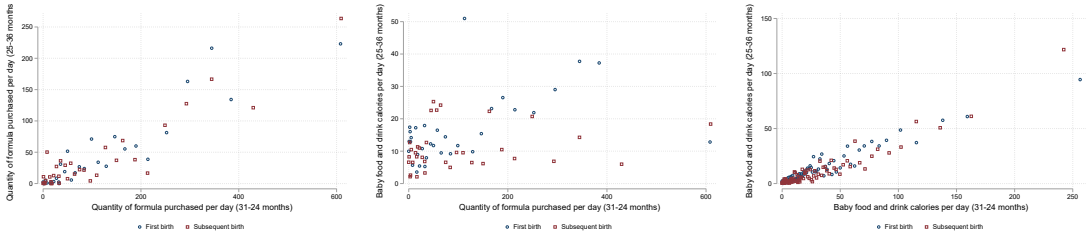



*13-24 month on 25-36 months*

(g) Formula - both periods

(h) Formula - baby food

(i) Baby food - both periods



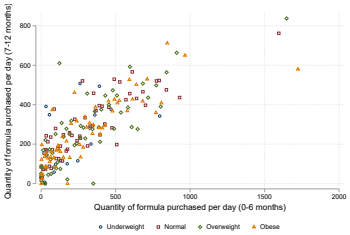

*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a 0-36 months-old in this period but observed to purchase formula, baby food and drinks. For details see Appendix A. Quantity of baby food/drinks (calories) (x-Axis) purchased within a specific child-age band is grouped into 100 equal-sized bins, and means of calorie purchases within each bin are computed and plotted against means of calorie purchases for the subsequent child-age band. Calories are calculated using product classification based on maffcode.*

**BMI**

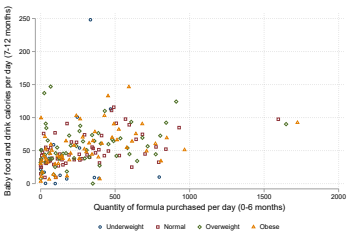
Figure D.3: *Sequential formula purchases by BMI classification*

*0-6 month on 7-12 months*

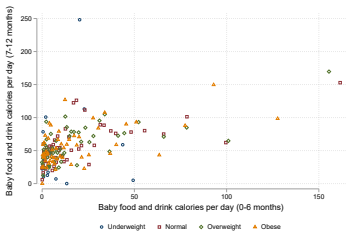
(a) Formula - both periods




(b) Formula - baby food

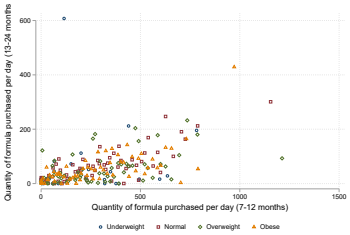



(c) Baby food - both periods

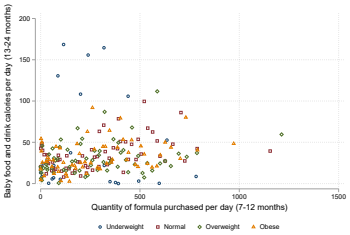



*7-12 month on 13-24 months*

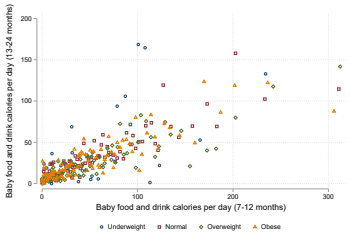
(d) Formula - both periods




(e) Formula - baby food

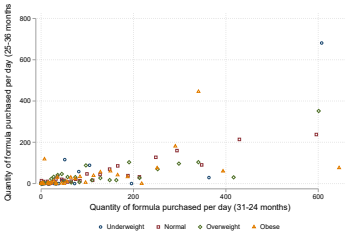



(f) Baby food - both periods

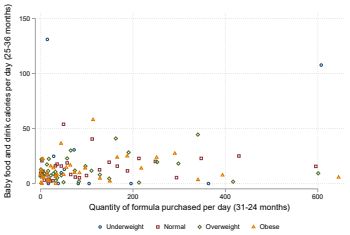



*13-24 month on 25-36 months*

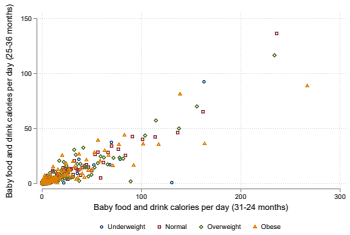
(g) Formula - both periods




(h) Formula - baby food



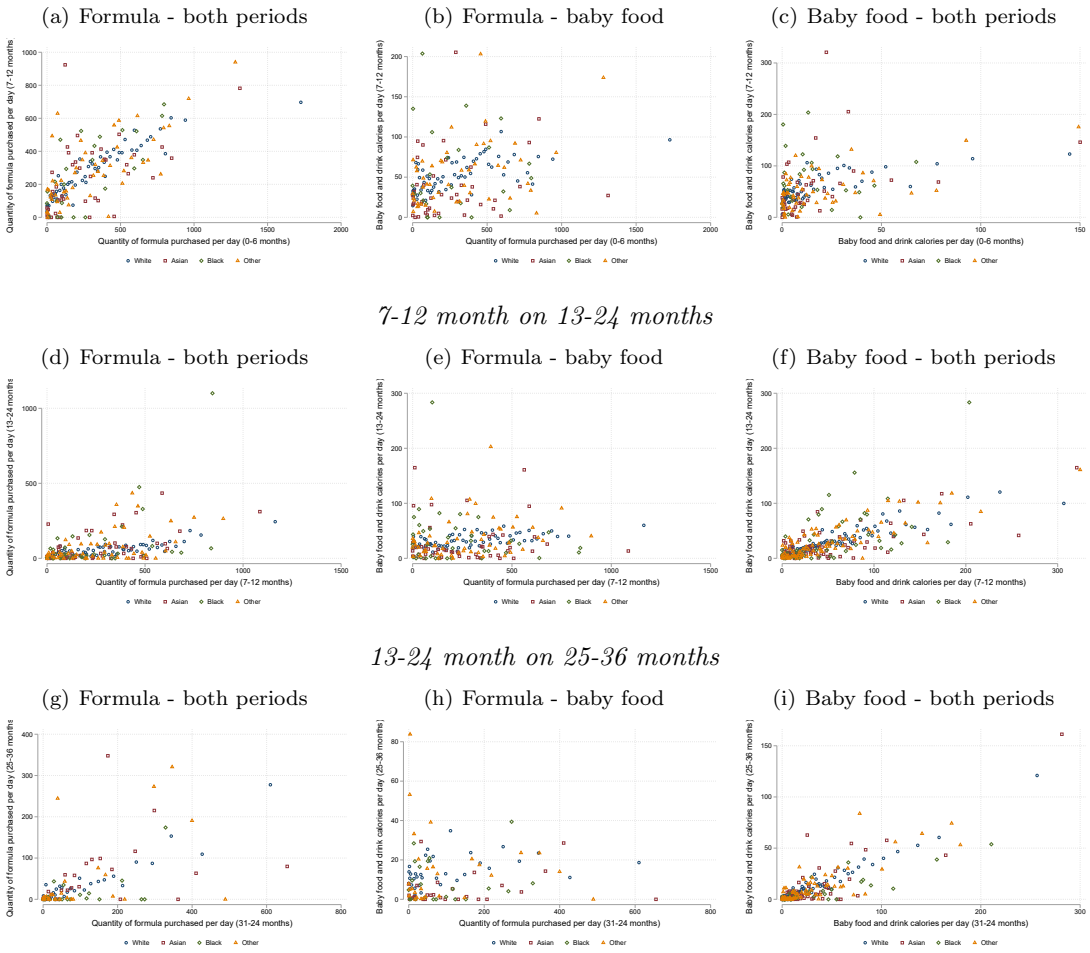

(i) Baby food - both periods




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a 0-36 months-old in this period but observed to purchase formula, baby food or drinks. For details see Appendix A. Quantity of formula (ml) purchased (x-Axis) within a specific child-age band is grouped into 100 equal-sized bins, and means of purchases within each bin are computed and plotted against means of ml purchases for this bin at the subsequent child-age band.*

## Ethnicity

Figure D.4: *Sequential formula purchases by ethnicity*

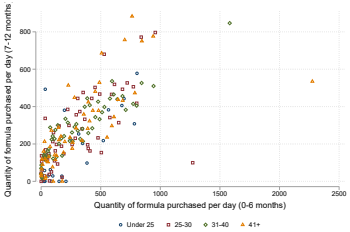



*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a 0-36 months-old in this period but observed to purchase formula, baby food or drinks. For details see Appendix A. Quantity of formula (ml) purchased (x-Axis) within a specific child-age band is grouped into 100 equal-sized bins, and means of purchases within each bin are computed and plotted against means of ml purchases for this bin at the subsequent child-age band.*

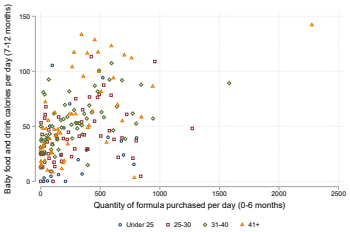
## Age of main shopper

Figure D.5: *Sequential formula purchases by age of main shopper*

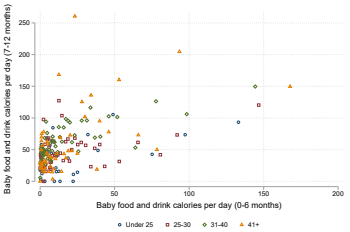
(a) Formula - both periods




(b) Formula - baby food

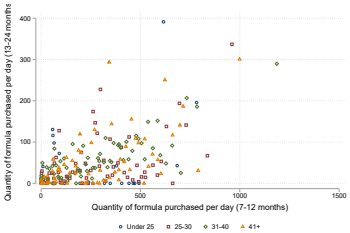



(c) Baby food - both periods

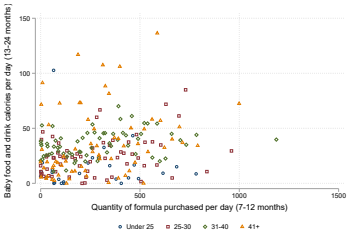



*7-12 month on 13-24 months*

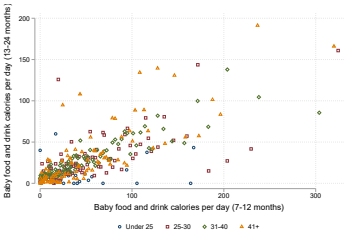
(d) Formula - both periods




(e) Formula - baby food

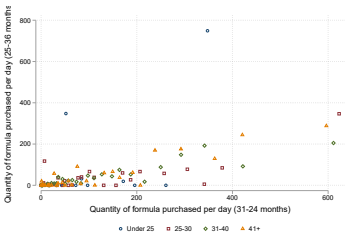



(f) Baby food - both periods

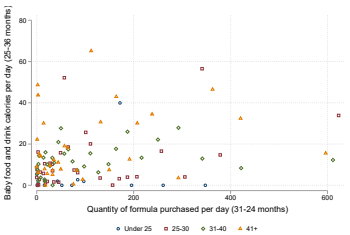



*13-24 month on 25-36 months*

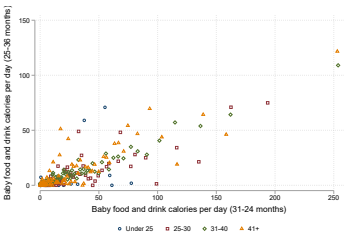
(g) Formula - both periods




(h) Formula - baby food




(i) Baby food - both periods




*Notes: Kantar data October 2016 - February 2020. Sample includes all households with one child aged 0-36 months (or pregnant, i.e. child to be born within the next 6 months) and households without a 0-36 months-old in this period but observed to purchase formula, or baby food or drinks. For details see Appendix A. Quantity of formula (ml) purchased (x-Axis) within a specific child-age band is grouped into 100 equal-sized bins, and means of purchases within each bin are computed and plotted against means of ml purchases for this bin at the subsequent child-age band.*