

Commercial foods for infants and young children

December 2024

Contents

1	Introduction.....	1
2	Food and nutrition for infants and young children	2
3	Regulations in the Australia New Zealand Food Standards Code.....	3
4	Potential non-regulatory (voluntary) approaches to improve commercial foods for infants and young children	4
5	Summary of stakeholder views	5
6	Policy position for commercial foods for infants and young children	8
7	Recommended approaches to address identified issues with commercial foods for infants and young children	8
8	Recommendations.....	12
	References.....	13

1 Introduction

This policy paper has been prepared by the Food Regulation Standing Committee (FRSC) to provide advice to the Food Ministers' Meeting on preferred policy approaches for improving the composition, labelling and texture of commercial foods for infants and young children to better align with the recommendations in Australian and New Zealand infant and toddler feeding guidelines.

This work is the final step in a series of papers presented to Food Ministers on this topic:

- a paper on composition and availability of commercial foods for infants and young children in Australia and New Zealand prepared for Food Ministers by the Australian Government in November 2020
- an issues paper prepared by FRSC outlining the problems with commercial foods for infants and young children provided to Food Ministers in December 2023; and
- a Consultation Regulation Impact Statement (RIS) requested in December 2023 on options for improving commercial foods for infants and young children, approved by Food Ministers in July 2024.

This paper summarises the issues with commercial foods for infants and young children, and presents stakeholder views on the issues and potential solutions. It then provides a policy position to support the development of regulatory and non-regulatory responses. The purpose of this paper is to detail the recommended policy position on commercial foods for infants and young children and approaches to address the issues identified with these foods.

1.1 Scope and terminology

The products in scope of this work include:

- *Commercial food and drink products labelled as suitable for healthy infants and young children. This includes 'food for infants' as defined in the Australia and New Zealand Food Standards Code (the Code) and products:*
 - displaying an age statement anywhere on product packaging recommending introduction at an age of less than 4 years of age
 - represented with other elements that might imply or explicitly state the food is tailored for this age group. For example words or images relating to: 'baby', 'infant', 'toddler', or 'young child', including synonyms such as 'bub', 'tot', or 'little one'; or 'little hands', 'early growth', or 'first foods'.

Provision of foods and meals in settings such as day care/early learning services are out of scope for this work. As this work is focussed on foods for healthy infants and young children, foods for infants and young children which have special nutrient requirements are also out of scope. Infant formula products and toddler milk products are also out of scope for this work as these products have recently been reviewed, or are in the process of being reviewed by Food Standards Australia New Zealand (FSANZ).

It is also relevant to note in this paper, the following terminology:

- *infant - means a person under the age of 12 months*
- *young child(ren) - means children aged 1 to 3 years (up to the day before their 4th birthday)*
- *compositional limits - regulatory limits on the presence and levels of a nutrient in a particular food or food category*

- *reformulation - a general term to refer to improved food composition regardless of the approach to achieve this result (i.e. regulatory or voluntary)*
- *voluntary reformulation - a process whereby the food industry may voluntarily change the composition of foods to improve its nutritional profile with or without government leadership (provided the reformulation is not in breach of the Code).*

2 Food and nutrition for infants and young children

Infants and young children have high nutrient requirements (relative to their energy needs) to support growth and development. Being provided with age-appropriate foods and drinks in the first years of life gives children the best start to set them up for good health across their lifespan. Poor nutrition in the early years may result in an increased risk of developing obesity and other diet-related diseases later in life. The foods and flavours (e.g. sweet, salty, bitter) that young children are exposed to in their first two years of life form the basis of their eating habits and food preferences into adulthood [1-7].

The infants and toddler feeding guidelines in Australia and New Zealand recommend that foods are introduced from around 6 months of age, when the child is developmentally ready. The guidelines recommend a variety of nutritious foods are introduced, starting with purees and soft foods and progressing to family foods. The guidelines emphasise the importance of iron rich foods during this period, in addition to statements to limit the addition of salt or sugar to foods [1] [2]. While in New Zealand it is acknowledged that commercial baby foods are convenient, it is stated that an over-reliance on these products may reduce the variety of flavours and textures in the diets of infants and young children. [1].

2.1 Concerns with commercial foods for infants and young children

Consumption of commercial foods for infants and young children is common as carers see these as convenient, safe, economical, and healthy options[8, 9]. Recent years have seen a significant growth in the market for these foods [10]. There has been a particularly large increase in the market of purees packaged in baby food pouches with an attached nozzle/spout, and snack foods targeted to this age group [11]. Most infants and young children in Australia and New Zealand consume these products at least on an occasional basis, although frequent consumption is less common and decreases with age [8, 12, 13]. Analysis of products on the market that are targeted for infants and young children found improvements could be made to benefit the dietary intakes of infants and young children consuming these commercial foods. Many of the foods on the market are sweet, fruit based, high in sodium (products for young children), and do not necessarily provide key nutrients for this population group[14-19]. Expert groups have expressed concerns related to over reliance on commercial infant foods, in particular with the use of baby pouches/spouts where the texture and packaging of these foods are considered to lead to overfeeding, and have implications for food fussiness and do not support developmental (including oral-motor) progression in infant feeding [14].

Although considerable concern has been expressed about the use of commercial infant foods, the first observational study of New Zealand infants and young children to collect data on multiple outcomes has not seen these risks borne out with regards to energy intake, dental health, or iron status, at the levels of consumption currently seen [20-22]. However, the study did find that infants who frequently consumed pouches displayed higher food fussiness and more selective eating [21, 23].

Studies from Australia suggest generally adequate nutrient intake among infants and young children [24-26], with the exception of the 2021 OzFits study which found a high proportion (90%) of infants, and a moderate proportion (25%) of young children did not meet the Estimated Adequate Requirement (EAR) for iron, and 20% of infants did not meet the EAR for zinc [27]. Unlike the New Zealand study, this study did not attribute nutrient intakes specifically to commercial or other foods consumed by study participants.

Reviews also identified that labelling does not always support carers to make informed choices, with some product names not reflecting the predominant ingredients of the product, the use of numerous claims on packages which can create an impression that the product is a healthy choice, and age-guidance on products which may be encouraging carers to introduce complementary feeding closer to four months, rather than six months [19, 28-30]. There are also concerns regarding the use of children's characters on products as a marketing tool. Evidence shows products with such depictions on packages and labels draw children's attention and influence their food preference and choice [31].

More details on concerns with commercial foods for infants and young children is provided in the Consultation RIS developed for this work. These concerns can be summarised in the following problem definition which has been informed through feedback received on the Consultation RIS:

Commercial foods for infants and young children are poorly aligned with some aspects of the Australian and New Zealand infant and toddler feeding guidelines. These foods are often high in sugar (infant and young child foods), sodium (young child foods) and have limited iron content (except infant cereal products). Labelling does not support carers to make informed choices for infants and young children due to product naming not always accurately reflecting predominant ingredients, multiple claims on packages giving the impression that the product is a healthy choice, and age-advice/serving sizes which may infer that commercial foods can displace intakes of breastmilk or infant formula. There are also concerns the texture of commercial infant and young child foods typically do not match developmental progression in feeding.

In July 2024, Food Ministers agreed the objective of this work is to improve the composition, labelling and texture of commercial foods for infants and young children to better align infant and young child diets with Australian and New Zealand infant and toddler feeding guidelines.

3 Regulations in the Australia New Zealand Food Standards Code

Despite the vulnerability of this population group and the importance of nutrition in this critical period, current regulations in Australia and New Zealand for composition and nutritional quality do not apply to all foods promoted to be suitable for infants and young children.

Standard 2.9.2 – Food for Infants of the Code outlines regulatory requirements for specific infant foods (<12 months). This Standard covers “a food that is intended or represented for use as a source of nourishment for infants”. Examples of regulatory requirements covered by this Standard include: providing age-appropriate labelling, such as consistency and the recommended minimum age; and compositional requirements, such as maximum sodium limits and minimum and maximum iron requirements. These requirements apply to specific foods, such as ready-to-eat foods for infants, and cereal-based products (including baby cereal, infant rusks and biscuits). While these regulations do support carers to follow some aspects of dietary guidance for infants, such as minimising sodium intakes, the regulations are not broad enough to address all of the identified concerns with foods on the market that are promoted for infants such as snack foods, or purees which are predominantly sweet from high use of fruit ingredients.

Standard 2.9.3 – Formulated meal replacements and formulated supplementary foods includes formulated supplementary foods for young children under Division 4 of the Standard. This Standard regulates foods intended to supplement a normal diet on occasions where energy and nutrient intake may be inadequate and does not cover general foods targeted to this age group. Almost all of the products on the market that are regulated by Standard 2.9.3 are “toddler milks”. Food Ministers have requested FSANZ to review composition and labelling of toddler milk to ensure applicable food standards are based on the latest evidence and reflects current international regulations and market development.

General requirements – The Code also contains standards that apply to labelling of all foods. These include: allergen labelling requirements; nutrition health and related claims such as ‘no added sugar’; the requirement for a Nutrition Information Panel; and a statement of ingredients which lists ingredients the food in descending order by ingoing weight.

While the Code prohibits infant formula products from carrying nutrition content, ingredient or health claims, this exclusion does not apply to infant foods, or foods for young children (which are not specifically regulated in the Code).

To address concerns with commercial foods for infants and young children, the existing regulations could be reviewed. Any changes to existing regulations would come with a cost to industry through product reformulation or labelling changes. However, compared to non-regulatory approaches, regulatory changes have the benefit of providing a level playing field so early adopters are not unfairly disadvantaged from a commercial perspective. Regulatory changes are also accessible to all consumers, not just informed consumers who are reading and comparing product labels, and knowledgeable about infant feeding guidelines.

Relevant Policy Guidelines – Policy guidelines aim to improve outcomes for all by making clear and unambiguous the policy principles that apply to jurisdictions and bodies making food regulations. When FSANZ is developing or reviewing food regulatory measures, a written policy guideline is one of a number of matters to which it must have regard (as outlined in the *FSANZ Act 1991*).

In addition to the information outlined in this policy paper, the following policy guidelines would be applicable to FSANZ when considering any changes to regulations for commercial foods for infants and young children:

- *Policy Guideline on Food labelling to support consumers to make informed heathy food choices*
- *Policy Guideline on the intent of Part 2.9 - Special Purpose Foods*
- *Policy Guideline on nutrition, health and related claims*

4 Potential non-regulatory (voluntary) approaches to improve commercial foods for infants and young children

Non-regulatory initiatives could be harnessed to address some of the identified issues with commercial foods for infant and young children that are not well-suited to regulatory approaches. There is work underway in Australia through the Healthy Food Partnership (the Partnership) to consider approaches for improving commercial foods aimed at infants and young children.

The Healthy Food Partnership Foods for Early Childhood Reference Group commenced in 2021 with the role of developing voluntary guidance to support the food industry to improve commercial foods for infants and young children. While the Partnership is an Australian initiative, the guidance or equivalent guidance could be developed and implemented in New Zealand. While the major

manufacturers of commercial foods for infants and young children sell products in both countries, the New Zealand market is smaller.

There are challenges associated with non-regulatory approaches. For example, benefits to the community are dependent on widespread industry adoption of voluntary recommendations. Early industry adopters may benefit from the positive associations with making these foods healthier compared with their competitors, or they may find themselves to be at a commercial disadvantage.

5 Summary of stakeholder views

A public consultation was held to seek stakeholder views on the issues identified with commercial foods for infants and young children and proposed policy options for improving these foods. Stakeholders were invited to make a submission to questions in the Consultation RIS prepared by FRSC. The Consultation RIS outlined possible regulatory and non-regulatory policy approaches to address the issues identified with commercial foods for infants and young children.

The consultation was open on the Australian Government Department of Health and Aged Care’s consultation hub for 6 weeks, from 5 August 2024 to 13 September 2024.

Fifty-eight submissions were received from a range of stakeholder sectors, as outlined in Table 1. The majority of submissions from the Australian public health sector and researchers/academics were highly coordinated and consistent, with occasional additions to emphasise particular issues.

Table 1. Stakeholder submissions received from various sectors in Australia and New Zealand

	Number of responses from Australia	Number of responses from New Zealand
Food industry	6 (+1 both AU and NZ)	2 (+1 both AU and NZ)
Public health organisations	20	5
Government organisations	5	1
Community members	3	1
Researchers/academics	10	2
Other	1	1

5.1 Preferences for regulatory versus non-regulatory approaches

Stakeholders were asked to nominate which concerns with commercial foods for infants and young children were best addressed through regulatory or non-regulatory approaches.

One third of industry stakeholders (33%) preferred a combination of regulatory and non-regulatory approaches for improving commercial foods for infants and young children. The status quo was supported by 25% of industry submitters, including a major manufacturer and an industry peak body. These stakeholders considered that the existing regulations were suitable and did not require

changes. Two industry stakeholders preferred regulatory approaches (22%), and one supported non-regulatory approaches (11%)¹.

Non-regulatory approaches suggested by industry stakeholders included: increasing public education around product selection when shopping; educating about the role of commercial foods versus family foods; and improving the composition, texture and general labelling of products through voluntary commitments. Approaches considered best suited to regulation involved implementing compositional limits through the Code and improvements to ingredient labelling and the Nutrition Information Panel (e.g. declaring different types of sugar). Concerns were raised regarding regulatory approaches and the additional regulatory burden it may impose. However, a voluntary guide on how to develop products with better flavour, texture and composition profiles was noted as potentially suitable.

Most stakeholders (92%) from public health, research/academia and government sectors supported a regulatory approach. These stakeholders asserted that regulation provided guaranteed long-term benefits that outweighed any associated short-term costs to industry, whilst also ensuring standards remained consistent for all manufacturers. These stakeholders considered that non-regulatory approaches would not be effective to address identified concerns with foods for infants and young children, noting that this is a vulnerable population group and that poor eating patterns during this age period can have lasting impacts.

The need for strengthened regulations on labelling such as claims/endorsements and age-appropriateness (including not permitting snack products to indicate they are suitable for infants under 12 months in line with dietary guidelines that recommend avoiding discretionary foods for this age group); composition for sugar and sodium content (beyond existing requirements); and implementing a maximum serving size on single serve pouches was highlighted.

Some public health stakeholders indicated that improving the texture and flavour of products, education and addressing the use of common allergens were more suited to non-regulatory approaches. Others suggested that combining a regulatory approach with education measures could be beneficial. There was a difference of opinion however, as to whether removing spouts from packaging should be addressed via regulatory or non-regulatory avenues. One stakeholder also noted that a consumer lens should be applied to the proposed options and consideration given to health equity outcomes.

Members of the public supported a combination of regulatory and non-regulatory approaches. One stakeholder highlighted the need for allergens to be managed via a non-regulatory, voluntary approach; whilst iron, sodium and sugar should be regulated to enforce compliance.

5.2 *Iron rich foods*

Of the range of potential actions identified in the Consultation RIS, iron fortification attracted the most attention. Stakeholders did not raise major concerns regarding other suggested actions to improve the composition and texture of commercial foods for infants and young children identified in the Consultation RIS.

Iron rich food sources were recognised as an important addition to an infant and young child's diet however, iron fortification of commercial foods was an area of concern raised by many public health

¹ Total does not add to 100% as not all industry submitters answered the question about preferred approaches

stakeholders, and some industry stakeholders. Public health stakeholders considered that having a minimum iron requirement for commercial foods would encourage both fortification and marketing of fortified foods which may lead to a 'health halo'² effect. These public health stakeholders considered that although many commercial foods for infants and young children are low in iron, there is currently no evidence at the population level to show that this is impacting the health of young children. Public health and certain industry stakeholders considered that infants and young children should obtain iron from iron-rich animal foods and plant alternatives rather than commercial fortified foods. However, some other academic stakeholders noted that it is challenging for older infants and young children to consume sufficient iron without use of fortified products and supported expanding permissions for iron fortification in the Code. An industry stakeholder also noted challenges with increasing iron content of non cereal-based foods (to levels that achieve an iron claim) through addition of food-based ingredients (e.g. meat) due to changes in texture, consistency and flavour of the food.

5.3 Actions taken by industry and technical challenges

Industry stakeholders provided information on reformulation and other activities they have undertaken to improve commercial foods for infants and young children. This included launching new products with higher amounts of core protein sources and no added fruit, reduced or no added sugar products and vegetable dominant-products. However, it was noted that most of these products had since been delisted from retailer ranging due to poor sales. One industry stakeholder mentioned that alternative packaging formats to pouches (e.g., individual and bulk tubs) had also been launched but similarly discontinued due to poor sales.

Technical challenges raised included modifying the composition of infant and toddler foods. This encompassed issues with flavour (e.g. unpalatable fish taste) and texture (e.g., grittiness) when iron-rich foods such as fish and meat are added at higher levels. Barriers to iron fortification were highlighted, including product discolouration and limited permissions in the Code for infant foods that may be fortified with iron.

5.4 Additional policy options

Additional policy options suggested by an industry stakeholder included that supermarkets could limit the shelf space provided to products which do not meet guidelines, and increasing tax on products containing over 15% added sugar.

An additional option suggested by the public health sector was implementing a bespoke system, similar to the Health Star Rating (HSR) system, specifically for infants and young children.

Alternative options proposed by members of the public included: publicly ranking brands by using a minimum standard; applying a greater emphasis on sugar content in the HSR calculator³; ensuring fruits and vegetables are cheaper than unhealthy food; and minimising the use of 'hidden' additives (e.g. Monosodium glutamate in yeast extract). An additional suggestion was banning products

² The health halo effect refers to the act of overestimating the healthfulness of an item based on product claims, such as being low in calories or low in fat.

³ Under the Australia New Zealand Food Standards Code Part 2.9, infant formula, toddler milks and other formulated supplementary foods for infants and young children are prohibited from displaying the HSR. General foods targeted at young children over 12 months of age are eligible to display the HSR.

containing the food additives listed at the end of the Australia National Healthy Canteen Guidelines within any facility that looks after children; providing carers with this list; and implementing advisory statements for these additives.

6 Policy position for commercial foods for infants and young children

A policy position to guide approaches for improving commercial foods for infants and young children has been developed. This position is informed by the important role that food plays in an infant and young child's growth and development, and in the establishment of eating patterns and taste preferences into adulthood.

Commercial foods for infants and young children should support infants and young children in their progression from infant formula/breastfeeding to eating a healthy, diverse and balanced diet in accordance with national dietary guidelines for the relevant age groups. For these foods:

- *Composition should reflect the high nutrient requirements of infants and young children, relative to their energy requirements.*
- *Composition should support infants and young children to experience a variety of flavours without additional sweetness or saltiness.*
- *Texture, packaging and label information should support oral-motor developmental progression while ensuring safety.*
- *Mandatory information, voluntary claims and representations on labels of foods for infants and young children should support carers to make informed and appropriate choices about these foods in a child's diet, taking into account their age and developmental stage.*
- *Child-directed marketing features should not be used to influence children and their carers towards the purchase of discretionary or nutritionally-poor commercial foods for infants and young children.*

7 Recommended approaches to address identified issues with commercial foods for infants and young children

Table 2 outlines the identified issues with commercial foods for infants and young children and recommended approaches for improving the composition, labelling and texture of commercial foods for infants and young children to achieve this policy position and better align with the recommendations in the Australian and New Zealand infant and toddler feeding guidelines.

The recommendations in Table 2 give consideration to the stakeholder views outlined above, the evidence informing the Consultation RIS, and the above policy position.

Regulatory approaches are considered most likely to meet the policy objectives, and have the least feasibility concerns. The benefits will be greater than non-regulatory approaches as regulatory approaches ensure widespread changes to the market and are not dependent on voluntary industry commitments. It is recommended the approaches best suited to regulation be referred to FSANZ.

Regulatory approaches should be complemented by actions undertaken through non-regulatory frameworks. For example, some aspects of composition which are ingredient based (e.g. fruit content of vegetable-based products) are better suited to non-regulatory approaches. In Australia, the approaches best addressed through non-regulatory frameworks will be led by the Department of Health and Aged Care in consultation with the Partnership; in New Zealand the government is considering how best to develop a similar non-regulatory approach.

Table 2. Recommended approaches for identified issues with commercial foods for infants and young children

Issue and justification	Regulatory approaches (e.g. Food Standards Australia New Zealand)	Non-regulatory approaches
<p>Composition</p> <p>Studies on Australian commercial foods for infants and young children have identified poor alignment with some aspects of dietary recommendations [32]. The main areas of concern were related to sweet flavours, sugar content, low iron content, allergen content, energy density and sodium content [14, 16, 17, 33, 34].</p> <p>Regulations can address many of these concerns to ensure that products formulated for infants and young children are suitable and nutritious.</p> <p>Some concerns relating to nutrient intake, feeding practices and dietary patterns cannot be appropriately addressed through food regulation. These issues are better addressed through non-regulatory measures such as industry guidance and consumer education.</p>	<p>Review and consider regulatory compositional requirements for commercial foods for infants and young children based on the latest scientific evidence, market developments, changes in the international regulatory context and age based nutrient requirements. This includes, but is not limited to ingredients and nutrients such as:</p> <ul style="list-style-type: none"> • sweeteners (nutritive and non-nutritive), sugar and carbohydrates • salt and sodium • key vitamins and minerals • protein • fat including saturated fat and industrially-produced trans fats (or use of partially hydrogenated oils) • energy density. 	<p>Establish guidance for industry on ingredient use in foods for infants and young children.</p> <p>For example:</p> <ul style="list-style-type: none"> • use of iron rich ingredients • introduction of flavours and limiting sweet tasting ingredients • encouraging protein sources to be from whole foods • encouraging use of allergens in formulation to support appropriate allergen exposure.
<p>Labelling</p> <p>There are concerns that current labelling practices do not support carers to make informed choices for infants and young children [8, 28, 30].</p> <p>Dietary guidelines recommend infants exclusively receive breastmilk or infant formula (when an infant is not receiving breastmilk) until around 6 months [1, 2]. Foods should be introduced from around 6 months of age, when developmentally ready. From around 6 months until one year of age, breastmilk or infant formula remains the main source of</p>	<p>Review the Nutrition Information Panel (NIP) requirements to ensure it supports carers awareness of the content of priority nutrients in food for the relevant age groups.</p> <p>Review labelling advice about age-appropriateness of foods for infants to ensure foods do not displace age-appropriate breastmilk or formula intake, and support healthy eating behaviours in line with dietary guidelines.</p>	<p>Establish guidance for industry for the naming of products and imagery used to reflect the true nature of the product. For example, ensuring that when images of vegetables are on packaging they are a significant portion of the product and in their whole form.</p>

Issue and justification	Regulatory approaches (e.g. Food Standards Australia New Zealand)	Non-regulatory approaches
<p>energy and nutrients for infants [1]. Solid foods should provide an increasing proportion of the energy intake after 12 months of age [2]. However, current food labelling practices may imply 4 months is the appropriate age to commence solids, or promote overconsumption of foods relative to breastmilk or formula [28-30].</p> <p>Many products are marketed as snack foods while dietary guidance does not recommend discretionary foods like snacks for infants and avoiding or limiting these foods for young children [1, 2, 13, 35].</p> <p>Additional labelling and packaging regulations may reduce potential for carers to misunderstand appropriate use of commercial foods for infant and young children. Non-regulatory approaches can also support regulatory actions.</p>	<p>Review claims in relation to infant and young children foods, and specific claim requirements for infant foods, to ensure claims enable carers to make an informed choice and are not misleading.</p> <p>Review the representations and naming requirements for foods to ensure regulations enable informed choice. In particular, food names and representations based on characterising ingredients.</p> <p>Consider regulating the use of child-directed marketing features for discretionary or nutritionally-poor commercial foods for infants and young children.</p>	
<p>Texture</p> <p>There are concerns the texture of commercial infant foods typically do not match developmental progression in feeding [14, 36].</p>	<p>Consider requirements regarding texture and minimum and maximum age to support appropriate developmental progression and healthy eating behaviours.</p>	<p>Develop guidance about the appropriateness of the texture of the food and a child's developmental stage.</p>
<p>Packaging</p> <p>Commercial foods for infants and young children are often being packaged in pouches with spouts. Studies in Australia have found this practice/product type is rapidly increasing [17, 33, 37].</p> <p>The popularity of these products is concerning, as the practice of sucking directly from the spout can deprive children of seeing, tasting and feeling the food, reduces opportunities to</p>	<p>Consider requirements, including labelling, around packaging of foods for infants and young children to support physical and skills development.</p>	<p>Establish guidance for industry around packaging (including use of spouts) of foods for infants and young children to support texture progression and physical and skills development throughout the transition to solid foods.</p> <p>Establish serving size guidance for industry to ensure packaging does not encourage over consumption.</p>

Issue and justification	Regulatory approaches (e.g. Food Standards Australia New Zealand)	Non-regulatory approaches
<p>learn how to eat with a spoon and can have an impact on appetite regulation [38-40].</p>		
<p>Education for health professionals and carers</p> <p>While information and education about healthy eating is available, coverage is limited in some areas and other factors such as marketing, convenience, and price also play a significant role in determining what foods parents, guardians, and carers choose to feed their children. A recent study found less than half of mothers surveyed were aware of the Australian infant feeding guidelines [41].</p>		<p>Improve the promotion and dissemination of education for health professionals on nutritional requirements and guidelines for healthy eating for infants and young children.</p> <p>Review existing resources, update or develop new resources where required, and disseminate plain English and translated (and tailored) educational resources for Culturally and Linguistically Diverse (CALD) groups, Māori, Pasifika, Aboriginal and Torres Strait Islander people.</p> <p>Develop education material for carers about regulatory changes and the rationale supporting these changes.</p>

8 Recommendations

It is recommended that Food Ministers refer the regulatory issues identified in Table 2 to FSANZ to consider as part of its standard regulatory processes. Regulatory approaches should be complemented by actions undertaken through non-regulatory frameworks, and it is recommended that Food Ministers refer non-regulatory actions in Table 2 to be led by the Australian Government Department of Health and Aged Care and New Zealand government.

References

1. New Zealand Ministry of Health, *Healthy Eating Guidelines for New Zealand Babies and Toddlers (0–2 years old)*. 2021, Ministry of Health: Wellington.
2. National Health and Medical Research Council, *Infant Feeding Guidelines: Summary*. 2013: Canberra.
3. De Cosmi, V., Scaglioni, S., Agostoni, C., *Early taste experiences and later food choices*. *Nutrients*, 2017. **9**(2): p. 107.
4. Mennella, J.A., & Bobowski, N. K., The sweetness and bitterness of childhood: Insights from basic research on taste preference. *Physiology & behaviour*, 2015. **152**: p. 502-507.
5. Cowart, B.J., & Beauchamp, G. K., , *The importance of sensory context in young children's acceptance of salty tastes*. *Child development*, 1986. **57**(4): p. 1034-1039.
6. Ventura A.K., W.J., *Early influences on the development of food preferences*. *Curr Biol*, 2013. **23**(9): p. R401-8.
7. Mura Paroche M, C.S., Vereijken C, Weenen H, & Houston-Price C., , *How infants and young children learn about food: a systematic review*. *Frontiers in Psychology*, 2017. **8**.
8. The Royal Children's Hospital Melbourne. *Ready-made baby food: Do parents know the facts? Poll Number 24*. National Child Health Poll 2022; Available from: <https://www.rchfoundation.org.au/2022/04/rch-chp-ready-made-baby-foods/>.
9. McLean, N., Taylor, R., Haszard, J. et al., Baby Food Pouch Use in New Zealand Infants: Findings from the First Foods New Zealand Observational Study. *The Lancet*, 2023. **Pre-print**.
10. ABC Packaging Direct. *Baby food: From jar to pouch: The evolution of packaging*. 2017; Available from: <https://cdn2.hubspot.net/hubfs/70169/reports/BABY%20FOOD%20PACKAGING%20REPORT.pdf>.
11. The Nielsen Company, Oh, Baby! Trends in the Baby Food and Diaper Markets Around the World. *Global Baby Care Report*. 2015.
12. McLean, N.H., et al., Frequent Use of Baby Food Pouches in Infants and Young Children and Associations with Energy Intake and BMI: An Observational Study. *Nutrients*, 2024. **16**(18): p. 3165.
13. National Health and Medical Research Council, *Australian Dietary Guidelines*. 2013: Canberra.
14. Brunacci, K.A., Salmon, L., McCann, J., Gribble, K., Fleming, C.A.K., The big squeeze: a product content and labelling analysis of ready-to-use complementary infant food pouches in Australia. *BMC Public Health*, 2023. **23**.
15. Moumin, N.A., Netting, M.J., Golley, R.K., Mauch, C.E., Makrides, M., Green, T.J., Does Food Intake of Australian Toddlers 12–24 Months Align with Recommendations: Findings from the Australian Feeding Infants and Toddlers Study (OzFITS) 2021. *Nutrients*, 2022. **14**.
16. Scully, M., Schmidtke, A., Conquest, L., Martin, J. and McAleese, A., Commercially available foods for young children (<36 months) in Australia: An assessment of how they compare to a proposed nutrient profile model. *Health Promotion Journal of Australia*, 2023.
17. The George Institute for Global Health. *FoodSwitch*. 2023; Available from: <https://www.georgeinstitute.org/projects/foodswitch>.

18. Katiforis, I., Fleming, E., A., Haszard, J., J., Hape-Cramond, T., Taylor, R., W., Heath, A., M., , Energy, Sugars, Iron, and Vitamin B12 Content of Commercial Infant Food Pouches and Other Commercial Infant Foods on the New Zealand Market. *Nutrients*, 2021. **12**(2).
19. Padarath, S., S. Gerritsen, and S. Mackay, Nutritional Aspects of Commercially Available Complementary Foods in New Zealand Supermarkets. *Nutrients*, 2020. **12**(10): p. 2980.
20. Cox, A., Taylor, R., Haszard, J. et. al. , Baby food pouches and Baby-Led Weaning: Associations with energy intake, eating behaviour and infant weight status. *Appetite*, 2024. **192**.
21. McLean, N., Haszard, JJ., Daniels, L., Taylor, RW., Wheeler, BJ., Conlon, CA., Beck, KL., von Hurst, PR., Te Morenga, LA., McArthur, J., et al. , *Baby Food Pouches, Baby-Led Weaning, and Iron Status in New Zealand Infants: An Observational Study*. *Nutrients*, 2024. **16**(10).
22. Tomiki, L.I.K., The effect of complementary feeding on New Zealand's infants dental health, in Faculty of Dentistry. 2023, University of Otago.
23. Haszard, J., Heath, A., Katiforis, I., Fleming, E., Taylor, R.,, *Contribution of baby food pouches and other commercial infant foods to the diets of infants: a cross-sectional study*. *The American Journal of Clinical Nutrition*, 2024. **Pre-proof**.
24. Oti-Boateng, P., Seshadri, R., Petrick, S., Gibson, R. A., Simmer, K., , *Iron status and dietary iron intake of 6-24-month-old children in Adelaide*. . *J Paediatr Child Health*, 1998. 34(3): p. 250-253., 1998. **34**(3): p. 250-253.
25. Karr, M., Alperstein, G., Causer, J., Mira, M., Lammi, A., Fett, M., J., , *Iron status and anaemia in preschool children in Sydney*. *Aust N Z J Public Health*, 1996. **20**(6): p. 618-622.
26. Lioret, S., et. al., *Tracking of dietary intakes in early childhood: The Melbourne INFANT Program*. *European Journal Clinical Nutrition*, 2013. **67**: p. 275-281.
27. Moumin, N.A., et al., Usual Nutrient Intake Distribution and Prevalence of Inadequacy among Australian Children 0–24 Months: Findings from the Australian Feeding Infants and Toddlers Study (OzFITS) 2021. *Nutrients*, 2022. **14**(7): p. 1-11.
28. McCann, J., Russell, G., Campbell, K., Woods, J., *Nutrition and packaging characteristics of toddler foods and milks in Australia*. *Public Health Nutrition*, 2021. **24**: p. 1153-1165.
29. Scully, M., Jinnette, R., Schmidtke, A., On-pack claims, fruit imagery and misleading product name labelling on Australian infant and toddler foods. 2023, Cancer Council Victoria.
30. Chung, A., Myers, J., Skouteris, H. and Backholer, K.,, *Front-of-pack marketing on infant and toddler foods: Targeting children and their caregivers*. *Australian and New Zealand Journal of Public Health*, 2023. **47**(6): p. 100-101.
31. Ares, G., Velázquez, A. L., Vidal, L., Curutchet, M. R., & Varela, P.,, The role of food packaging on children's diet: Insights for the design of comprehensive regulations to encourage healthier eating habits in childhood and beyond. *Food Quality and Preference*, 2022. **95**.
32. McCann, J.R., Russell, C.G., Woods, J.L.,, The nutritional profile and on-pack marketing of toddler specific food products launched in Australia between 1996 and 2020. *Nutrients*, 2022. **14**(1).
33. Moumin, N.A., et al., Are the nutrient and textural properties of Australian commercial infant and toddler foods consistent with infant feeding advice? *British Journal of Nutrition*, 2020. **124**(7): p. 754-760.
34. Netting, M.J., Gold, M.S., Palmer, D.J.,, *Low allergen content of commercial baby foods*. . *Journal of Paediatrics and Child Health*, 2020. **56**(10): p. 1613-1617.

35. New Zealand Ministry of Health, Food and Nutrition Guidelines for Healthy Children and Young People (Aged 2–18 years): A background paper – Revised February 2015. 2012, Ministry of Health: Wellington.
36. Moumin N.A., N., M.J., Golley, R.K., Mauch, C.E., Makrides, M., Green, T.J., Does Food Intake of Australian Toddlers 12–24 Months Align with Recommendations: Findings from the Australian Feeding Infants and Toddlers Study (OzFITS) 2021. *Nutrients*, 2022. **14**.
37. Rowan, M., et al., A Qualitative Study of Parental Perceptions of Baby Food Pouches: A Netnographic Analysis. *Nutrients*, 2022. **14**(15).
38. Koletzko, B., Godfrey, K.M., Poston, L., Szajewska, H., van Goudoever, J.B., de Waard, M., Brands, B., Grivell, R.M., Deussen, A.R., Dodd, J.M., Patro-Golab, B., Zalewski, B.M., and Early Nutrition Project Systematic Review Group, *Nutrition During Pregnancy, Lactation and Early Childhood and its Implications for Maternal and Long-Term Child Health: The Early Nutrition Project Recommendations*. *Ann Nutr Metab.*, 2019. **74**(2): p. 93-106.
39. Koletzko, B., Lehmann Hirsch, N., Jewell, J., Caroli, M., Rodrigues Da Silva Breda, J., Weber, M., *Pureed Fruit Pouches for Babies: Child Health Under Squeeze*. *Journal of Pediatric Gastroenterology and Nutrition* 2018. **67**: p. 561-563.
40. Netting, M., Moumin, NA., Makrides, M., Green, T.J. , *The Australian Feeding Infants and Toddlers Study (OzFITS) 2021: Highlights and Future Directions*. . *Nutrients*. 2022 Oct 17;;, 2022. **14**: p. 4343.
41. Begley, A., et al., *Mothers' Understanding of Infant Feeding Guidelines and Their Associated Practices: A Qualitative Analysis*. *International Journal of Environmental Research and Public Health*, 2019. **16**(7): p. 1141.