

UNICEF

PROGRAMMING

GUIDANCE

Improving Young Children's Diets During the Complementary Feeding Period



NUTRITION GUIDANCE SERIES

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Abbreviations

ASF	Animal-source foods	UN	United Nations
ARCH	Assessment and Results on Child Feeding	UNICEF	United Nations Children’s Fund
BMI	Body mass index	WASH	Water, sanitation and hygiene
C4D	Communications for development	WAZ	Weight-for-age Z-score
CF	Complementary feeding	WHA	World Health Assembly
DHS	Demographic and Health Surveys	WHO	World Health Organization
FAO	Food and Agricultural Organization	WHZ or WLZ	Weight-for-height or weight-for-length Z-score
HAZ or LAZ	Height for age or length for age Z-score		
HMIS	Health management information systems		
IYCF	Infant and young child feeding		
LMICs	Low and middle-income countries		
MAD	Minimum acceptable diet		
MDD	Minimum dietary diversity		
MEL	Monitoring, evaluation and learning		
MICS	Multiple Indicator Cluster Surveys		
MMF	Minimum meal frequency		
MNPs	Micronutrient powders		
NCDs	Non-communicable diseases		
NGOs	Non-governmental organizations		
ORS	Oral rehydration solution		
RAM	Results assessment module		
SBCC	Social and behavior change communication		
SDGs	Sustainable development goals		
SMQ	Strategic monitoring questions		
SSBs	Sugar-sweetened beverages (also called soft drinks)		
SQ-LNS	Small quantity-Lipid-based nutrient supplements		

Definitions

Animal-source foods: Foods derived from animals, such as eggs, meat (beef, chicken, goat, etc.), and dairy products (milk, cheese, yoghurt, fermented milks, etc.).

Breastmilk substitute: Any food or drink being marketed or otherwise represented or used as a partial or total replacement for breastmilk. Recent WHO guidance clarifies that breastmilk substitutes include any milks that are specifically marketed for feeding children from birth to 3 years of age.

Codex Alimentarius standard: a standard adopted by the Codex Alimentarius Commission (the central part of the Joint FAO/WHO Food Standards Programme) to protect consumer health and promote fair practices in food trade.

Complementary foods: Solid, semi-solid and soft foods (both locally prepared and commercially manufactured) provided to children between the ages of 6 and 23 months to complement breastmilk.

Commercial complementary foods: Fortified or unfortified complementary foods that are commercially processed (either locally or internationally) and available in the market.

Follow-up formula: A milk or milk-like product of animal or vegetable origin that is industrially formulated in accordance with national standards or the Codex Alimentarius Standard for Follow-up Formula and marketed or otherwise represented as suitable for feeding infants and young children older than 6 months of age.

Growing up milk: A milk product marketed for children between 1 and 3 years of age. These products are not necessary for good child nutrition.

Infant formula: A milk or milk-like product of animal or vegetable origin industrially formulated in accordance with national standards, or the Codex Alimentarius Standard for Infant Formula, and intended to satisfy the nutritional requirements of infants during the first 6 months.

First foods: See complementary foods.

Fortified complementary foods: Complementary foods that are specifically formulated to provide additional energy and/or nutrients. These foods can be locally or commercially produced.

Home fortification: Also referred to as point-of-use fortification. An approach to improving the diet quality of nutritionally vulnerable groups, such as young children, by adding micronutrient powder (see 'micronutrient powders') or specialized fortified products (such as lipid-based supplements) to home-prepared foods.

Micronutrient powders (MNPs): Dry powder with micronutrients (vitamins and minerals) that can be added to any solid, semi-solid or soft food that is ready for consumption. MNPs are provided in sachets.

Nutrient-dense/rich foods: Foods with high micronutrient content in relation to weight. Nutrient-dense foods also contain sufficient macronutrients (i.e., energy and protein). Examples include legumes, nuts and seeds, animal-source foods and dark green and orange fruits and vegetables.

Processed foods: Foods that have been commercially prepared or packaged using baking, canning, drying or freezing. Not all processed foods are unhealthy, but some highly or ultra-processed foods (e.g., ready-to-eat meals and snack foods) contain high levels of salt, sugar and unhealthy fat, which have been shown to increase the risk of overweight, obesity and chronic diseases.

Responsive feeding: An approach to feeding where caregivers encourage children to eat, provide food in response to the child's appetite and satiety signals, and feed their children with care. Responsive feeding helps children develop healthy eating habits.

Street Foods: Prepared or cooked foods for immediate consumption sold by vendors on the street or in other public locations.

Sugar-sweetened beverage: Any liquid that is sweetened with added sugar, such as brown sugar, corn sweetener, corn syrup, dextrose, fructose, glucose, high-fructose corn syrup, honey, lactose, malt syrup, maltose, molasses, raw sugar, and sucrose.

The Code: The International Code of Marketing of Breast-milk Substitutes and all subsequent relevant resolutions adopted by the World Health Assembly. The Code aims to prohibit all forms of promotion of breastmilk substitutes, including infant formula, feeding bottles and teats.

Young child: A child aged 6–23 months, in the context of this Programming Guidance.

1.

Introduction





The right to adequate nutrition is a fundamental right for every child. Children who are fed enough of the right foods, in the right way, at the right time in their development, are more likely to survive, grow, develop and learn. They are better equipped to thrive, even when faced with disease, disaster or crisis.

Between the ages of 6 and 23 months – the complementary feeding period – breastfeeding and access to a diverse range of nutritious foods provide children with the essential nutrients, vitamins, and minerals they need to develop to their full physical and cognitive potential, with benefits that endure well into adulthood.^{1,2} The complementary feeding period is also a critical opportunity to prevent all forms of childhood malnutrition, including stunting, wasting, micronutrient deficiencies, overweight, obesity and diet-related non-communicable diseases. In addition, lifelong food preferences, tastes and habits are often established in childhood.

Yet in nearly every part of the world, families face economic, political, market, social or cultural barriers to providing nutritious, safe, affordable and sustainable diets to young children. These challenges are exacerbated in humanitarian situations, where access to nutritious food, clean drinking water, and good quality health services are limited, and the resources and capacities of caregivers already stretched. Young children and their caregivers are increasingly exposed to foods of low nutritive value, including commercial complementary foods and processed foods high in added sugar, salt and saturated and trans fats that are inexpensive, ubiquitous, and easy to feed to young children.³ Accelerating progress to improve the quality of complementary foods and feeding practices for young children is therefore critical.⁴

This Programming Guidance, *Improving Young Children's Diets During the Complementary Feeding Period*,* supports global efforts to improve the diets of children aged 6–23 months in all contexts.** It is intended for use by UNICEF staff in programmes such as nutrition, health, early childhood development, water, sanitation and hygiene and social policy – in regional, country and field offices – to support the work of governments and partner organizations.

Previous UNICEF guidance on infant and young child feeding focused mainly on evidence-based interventions and strategies for improving complementary feeding *practices* within the household.⁵ This Programming Guidance goes beyond feeding practices to articulate interventions and approaches for improving the *availability, accessibility, affordability and consumption of nutritious and safe complementary foods*. In addition, this Programming Guidance describes the most recent evidence on improving complementary feeding, explores the determinants and drivers of young children's diets, and presents action frameworks for delivering nutrition results for children through the food, health, water and sanitation, and social protection systems. It also provides guidance on monitoring and evaluating complementary feeding programmes and outcomes.

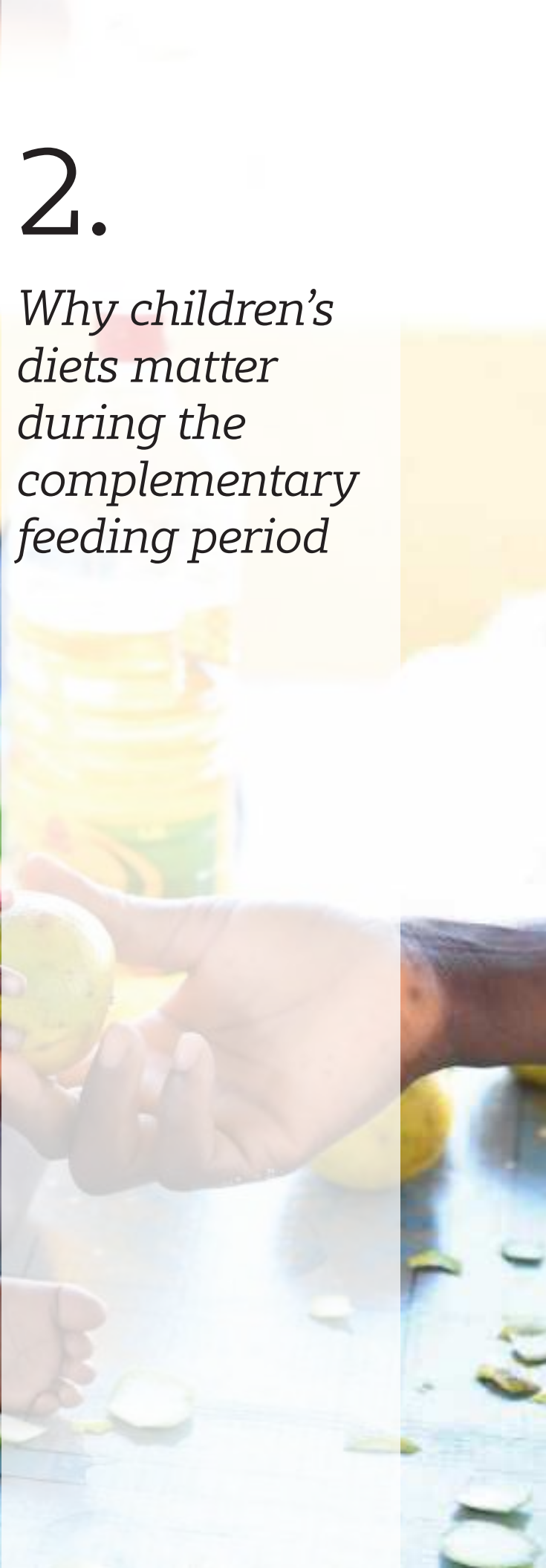
* The terms complementary foods/feeding and diets for young children are used interchangeably in this document.

** In both development and humanitarian programming contexts.



2.

Why children's diets matter during the complementary feeding period





The quality of children’s diets is more important before age 2 than at any other time in life.^{4, 6}

Appropriate complementary foods and feeding practices contribute to child survival, growth and development; they can also prevent micronutrient deficiencies, morbidity and obesity later in life.

The complementary feeding period, from 6 to 23 months of age, is one of the most challenging times to meet children’s nutrient demands. While children’s stomachs can only hold a small amount of food, their nutrient needs reach a lifetime peak,⁷ leaving them vulnerable to growth faltering. In most countries, declines in height-for-age or length-for-age (HAZ or LAZ) occur primarily during the complementary feeding period (*Figure 1*)^{1, 8} due to the inadequate quality and/or quantity of first foods, poor feeding practices and increased rates of infection.^{9, 10}

While first foods should be nutrient-rich, young children are often fed meals based mainly on staple cereals and grains, which are low in energy, protein, iron, zinc and other essential nutrients.¹¹⁻¹⁴ Unhygienic feeding practices also increase the risk of infections and diarrhoea^{4, 6} in young children, which, when combined with poor diets, can lead to growth failure.¹⁵

The most recent global estimates of complementary feeding practices – based on indicators established by WHO – highlight a worrying situation. In low- and middle-income countries, half of all children are not receiving the *minimum meal frequency* (the minimum number of meals throughout the day needed to meet their nutrient needs); more than two thirds of children are not receiving the *minimum dietary diversity* (meals from a minimum number of food groups); and five out of six children are not receiving a *minimum acceptable diet* (both the minimum meal frequency and minimum dietary diversity needed to reduce the risk of malnutrition) (*Figure 2*).¹⁶ Diet quality is associated with nutrition status: children who are fed at least a minimum

acceptable diet are less likely to be stunted or underweight.¹⁷⁻¹⁹

Despite widespread consensus on the importance of good nutrition in early life, an alarming number of young children are suffering the consequences of poor diets. At least one in three children under 5 is either undernourished or overweight, according to the *State of the World’s Children 2019: Children, food and nutrition*. Stunting affects 149 million children under 5 worldwide,^{4, 20} diminishing their physical and cognitive growth and development.²⁰ Children affected by stunting often grow up to be stunted adults themselves,²¹ and stunted mothers are more likely to have stunted children. Wasting affects more than 49 million children under 5 globally, putting them at increased risk of infection and death.^{20, 22} Indeed, undernutrition is responsible for up to 45 percent of deaths in children under 5 and is a significant cause of morbidity in this age group.²² At the same time, childhood overweight impacts at least 40 million children under 5, and is likely to continue rising in low- and middle-income countries, increasing the risk of non-communicable diseases in adulthood.^{20, 23, 24}

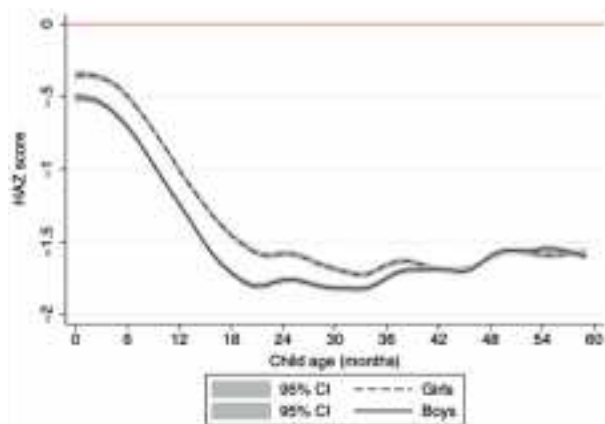


Figure 1: Growth faltering in height for age (HAZ) in children coincides with the complementary feeding period⁸

Poor child growth in the first 1,000 days from conception to age 2 predicts poorer survival^{22, 25} and increases the risk of obesity and diet-related non-communicable diseases in adulthood. It also reduces cognitive and educational outcomes²⁶ and leads to income losses later in life.^{22, 27} Stunted children may earn 20 per cent less than adults compared with their non-stunted peers,^{28, 29} and stunting can reduce a country's gross domestic product by up to 3 per cent.²⁹ Stunting and child growth deficits are difficult to reverse, while cognitive deficits may be permanent after two years.⁷

Improving children's diets is the foundation of sustainable and prosperous societies and paramount to achieving the 2030 Sustainable Development Goals (SDGs), including Goal 2 to improve nutrition and end all forms of malnutrition. Improving children's nutrition also supports the achievement of SDG targets on ending preventable childhood deaths and eliminating poverty, among others. Lastly, improving children's diets is central to addressing three of the six World Health Assembly (WHA) targets for reducing stunting, wasting and childhood overweight by 2025.

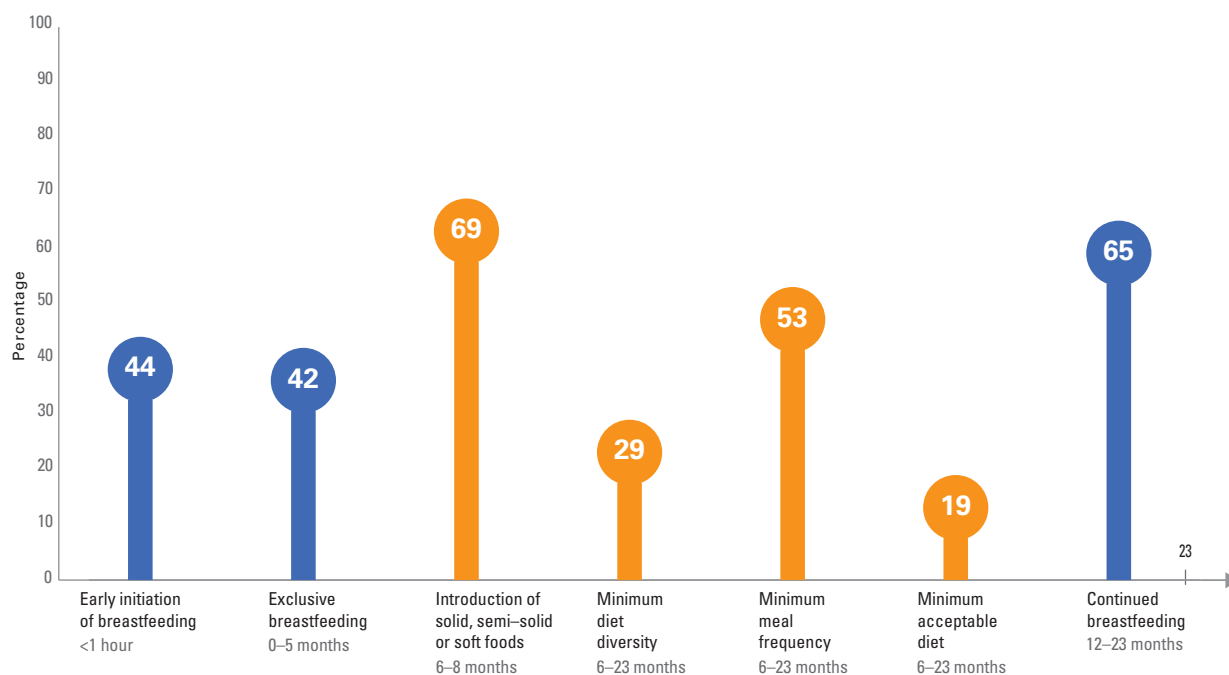


Figure 2: Percentage of children benefitting from the recommended infant and young child feeding practices

Source: UNICEF global databases, 2019, based on MICS, DHS and other nationally representative sources. Note: Data included in these global averages are the most recent for each country between 2013–2018.

3.

*Dimensions
of children's
diets during the
complementary
feeding period*





During the complementary feeding period, the quality of children’s diets is determined by the foods that children eat and the feeding behaviours of their caregivers. This section outlines *what* children should eat between the ages of 6 and 23 months; and *when and how* they should be fed by their caregivers to meet their nutrient requirements for growth and development.* It also outlines the key underlying factors that influence optimal feeding behaviours, such as food availability, accessibility, affordability and sustainability, and the supporting evidence regarding these dimensions.

3.1 WHAT CHILDREN EAT

WHO and UNICEF recommend that infants be exclusively breastfed from birth to 6 months of age. At 6 months, children should be introduced to age-appropriate, nutritious and safe complementary foods, alongside continued breastfeeding. An adequate diet during the complementary feeding period should be nutrient rich, without excess energy, saturated and trans fats, free sugars or salt.

Adequate diets for young children during the complementary feeding period are characterized by:

3.1.1 Dietary diversity: Young children need to consume a variety of foods to meet their nutrient needs and expose them to various tastes and textures. A diverse diet includes meals consisting of foods from a variety of food groups each day: (1) breastmilk; (2) grains, roots and tubers; (3) legumes, nuts and seeds; (4) dairy (milk, yoghurt, cheese); (5) flesh foods (meat, fish, poultry, and liver or organ meats); (6) eggs; (7) vitamin A-rich fruits and vegetables (carrots, mangoes, dark green leafy vegetables, pumpkins, orange sweet potato); and (8) other fruits and vegetables. Children who are fed a

diverse range of foods are more likely to meet their micronutrient requirements, including the need for vitamin A, iron, calcium, thiamine, folate, zinc, vitamins B6 and B12.³⁰⁻³³

3.1.2 Nutrient density: Young children have limited stomach capacity and must therefore eat small, nutrient-rich meals to maximize the nutrition in each bite. Examples of nutrient-dense local foods include meat, eggs and other animal-source foods and legumes, such as groundnuts. Cereals or plant-based porridges may appease hunger, but alone they do not provide sufficient energy, protein and micronutrients to fill the gap between breastmilk and the child’s nutrient requirements.³⁴ The quality of fat in children’s diets is important:³⁵ Long-chain-polyunsaturated fatty acids – especially omega 3 fatty acids, which are found in fish (such as trout, mackerel and sardines), seafood, nuts, seeds, soy bean and plant oils – promote cognitive and motor development in children.³⁶ Trans fats, often found in processed foods, should be avoided given their link to inflammation in children and chronic diseases in adults.³⁷ Nutrient-rich and energy-rich foods should be fed in age-appropriate and not excessive portions.

3.1.3 Inclusion of animal-source foods, vegetables and fruits: Animal-source foods (such as eggs, meat, poultry, fish and dairy) are a good source of high-quality protein and essential fatty acids and they should be introduced early, as some of the first foods that children eat. They are also an important source of key nutrients, such as zinc, iron,** vitamin B12 and calcium.^{38, 39} Emerging evidence shows that the consumption of at least five food groups, including animal-source foods, is associated with a reduced risk of stunting in young children.^{19, 40} Fruits and vegetables are vital components of a nutritious diet and a rich source of vitamins, minerals, dietary fibre and antioxidants.⁴¹ Consuming a variety of fruits and vegetables daily helps ensure an adequate intake of many essential nutrients.

* At the time of publishing the Programming Guidance, discussions are underway to update the WHO guiding principles for complementary feeding; however, few changes are expected following this update.

** With the exception of egg and dairy, which are not good sources of iron.

3.1.4 Inclusion of fortified foods or vitamin and mineral supplements, as needed: While nutrient-rich, home-prepared, and locally available foods are always preferable,⁴² it can be difficult to meet young children’s nutrient needs in settings plagued by food insecurity or humanitarian crisis, and in settings with predominantly vegetarian diets. In these contexts, foods fortified with vitamins and minerals that contain iron can fill nutrient gaps, and micronutrient powders (MNPs) can be added to enhance the quality of foods prepared at home (see section 5.4).⁴³ Commercial fortified foods for infants and young children (e.g., vitamin or mineral-enriched cereals) can also be an important source of micronutrients in some contexts. The promotion of affordable fortified complementary foods should always be undertaken in line with national and global standards (i.e., the International Code of Marketing of Breast-milk Substitutes and WHA Resolution 69.9).⁴⁴

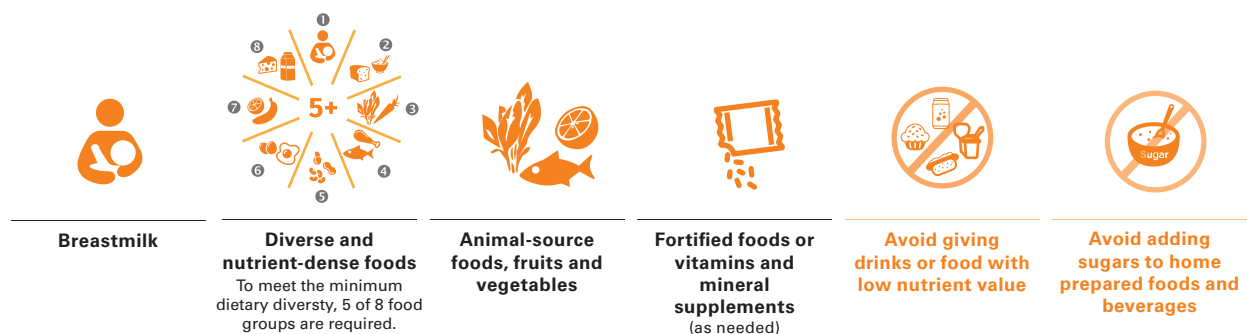
3.1.5 Avoidance of foods and beverages of low nutrient value: Caregivers should avoid providing drinks or foods with low nutritional value, such as sugar-sweetened beverages, candy, chips and other foods high in sugar, salt and trans fats. These ‘junk’ foods contribute little more than energy, while displacing breastmilk and decreasing the child’s appetite for more nutritious foods. The consumption of sugar-sweetened beverages by young children is associated with increased weight gain, body mass index (BMI) and risk of overweight and obesity.⁴⁵ Fruit juices, especially processed ones, should also be consumed in moderation as they are often rich in added sugars. Commercial complementary foods tend to have the same (sweet) taste and texture, and when

consumed regularly, can make children less interested in trying family foods and experiencing new tastes and textures. Spotlight 1 presents growing evidence on the inappropriate promotion of commercial complementary foods for young children.

3.1.6 Avoidance of added sugars: In many contexts, caregivers add sugar to foods and beverages prepared at home to improve the taste. Sugar can contribute to excess energy intake and cause dental caries. The consumption of sweet foods also contributes to a preference for such foods, with the potential to set lifelong taste preferences for sugar.

3.1.7 Continued breastfeeding: Children should continue frequent, on-demand breastfeeding until 2 years of age or longer. Continued breastfeeding throughout the complementary feeding period provides essential fats, proteins and other nutrients that are important in all settings. Evidence shows that children aged 6–23 months who do not receive breastmilk have a higher risk of all-cause mortality and infection-related mortality compared with breastfed children.⁴⁶ Studies in high income countries have shown that breastfeeding beyond 4 months of age is associated with a lower risk of child overweight and obesity.⁴⁷⁻⁴⁹ Breastfeeding is also associated with improved cognitive development.⁵⁰ Children who are not breastfed during the complementary feeding period should be fed dairy products such as animal milk, fermented milk or yoghurt. The use of follow-up formulas or growing up milks are not necessary and are often too high in sugars such as corn syrup solids or other added caloric sweeteners.⁵¹

What children should eat



Spotlight 1

Unpacking the concerns with commercial foods for young children⁵²

Sales of commercial baby and toddler foods have grown rapidly in recent years.⁵³ The role of these products in appropriate complementary feeding has been widely debated.⁵⁴

However, there is a growing body of evidence that the promotion of commercial foods for infants and young children has the potential undermine optimal nutrition during the complementary feeding period. These concerns are summarized below:

Nutritional composition

The levels of saturated or trans-fats, free sugars and salt in some commercially-produced baby food is too high and may predispose the child to non-communicable diseases.⁵⁵⁻⁶² Artificial sweeteners and other food additives in baby food are also linked with health concerns as they may encourage greater sugar consumption later in life.⁶³

Flavour and texture

The overwhelmingly sweet taste of commercial foods for young children can influence later taste preferences and habits.⁶⁴⁻⁶⁶ Fruit puree is often the main ingredient in such foods, and even ostensibly savoury or vegetable-based products list fruit as the first ingredient by volume. Given that the sweet fruit flavours mask the taste of the vegetable components, it has been argued that a less sweet product mix would help babies accept and like a wider variety of flavours.³⁴ Similarly, there are concerns about the introduction of salty tastes to young palates, as well as flavours not typically used in homemade foods or recommended in dietary guidelines for young children (e.g. chocolate or vanilla).

The provision of food in pouches can encourage children to suck the food directly from the nozzle of the pouch (even if this is not recommended by the

manufacturer). The ease and speed of feeding in this way may cause children to consume too many calories too quickly and could lead to dental caries.⁶⁷ Many commercial baby and toddler foods are very smooth in consistency.⁶¹ Because these foods are marketed without an upper age limit, they do not encourage progression to foods with different textures.⁶⁸ They also lack the authentic taste, texture and appearance of simple homemade foods and can negatively influence the acceptance of such foods later in childhood.⁵⁷

Some products on the market, such as biscuits, wafers, puffs, bars, bites and fruit shapes, encourage snacking and their marketing often positions them as an expected and appropriate part of a child's diet; however, in many ways, they are nutritionally similar to confectionery.³⁴

Inappropriate marketing

The promotion of commercial foods for infants and young children may undermine exclusive and continued breastfeeding by encouraging the introduction of these foods before 6 months of age or inferring that they are superior to breastmilk. Many products on the market indicate on the label that they are suitable for infants younger than 6 months and

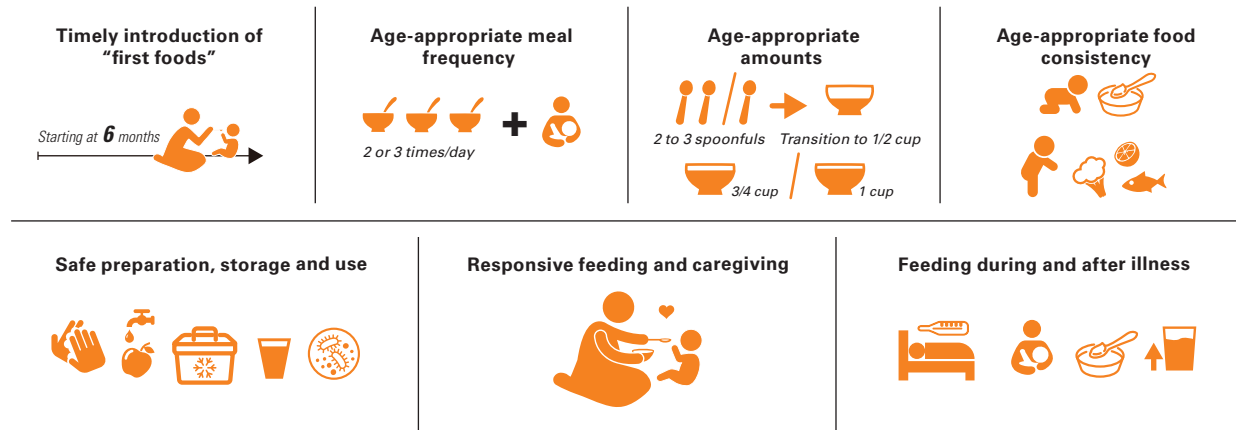
contain a variety of nutrition and health claims, which contravene UNICEF/WHO recommendations and Codex Alimentarius guidelines.⁶⁹ Some of these products are marketed using brands, labels and packaging that are very similar to those used for infant formula, thereby indirectly promoting these breastmilk substitutes (known as cross promotion).

The marketing of commercial foods for infants and young children can undermine the value of home-prepared foods (which are usually less expensive), discourage caregivers from feeding children a diverse diet, and create dependency on commercial products. It can also undermine caregivers' confidence that a diet based on home-prepared foods will result in the same health or educational outcomes.

Further information is available in the **WHO Guidance on Ending the Inappropriate Promotion of Foods for Infants and Young Children (Spotlight 4)**.



When and how children should eat



3.2 WHEN AND HOW CHILDREN ARE FED

3.2.1 Timely introduction of first foods: At 6 months of age, children should be introduced to their first soft, semi-solid or solid foods.⁴² Timely introduction of first foods is critical, as breastmilk alone is no longer sufficient to meet a child's requirements for optimal growth and development.³⁴

3.2.2 Age-appropriate meal frequency: Caregivers should increase the number of meals fed to children throughout the day as they get older. The appropriate number of feedings depends on the energy density of the food and the quantities consumed at each feeding. WHO recommends the following minimum meal frequency for an average healthy child:^{5, 70}

- Two meals a day of solid, semi-solid or soft foods for breastfed infants aged 6–8 months;
- Three meals a day of solid, semi-solid or soft foods for breastfed children aged 9–23 months;
- Four meals a day of solid, semi-solid or soft foods (or milk feeds) for non-breastfed children aged 6–23 months, of which at least one meal must include solid, semi-solid or soft food.³³

* Milk feeds are not included as a meal for breastfed children because the recommended frequency is based on an assumed average breastmilk intake. Caregivers can offer one or two healthy snacks to the child, such as a piece of fruit, while exercising caution to avoid displacing breastmilk in the child's diet.

3.2.3 Age-appropriate amounts: Caregivers should introduce children to small amounts of food at first and increase the quantity of each meal gradually as the child gets older. The recommended age-appropriate amounts per meal for breastfed and non-breastfed children are as follows:⁴²

- Begin with 2–3 teaspoons of food and transition to about ½ cup** per meal for children aged 6–8 months.
- Provide ½ cup per meal to children aged 9–11 months.
- Provide ¾ cup to 1 cup per meal to children aged 12–23 months.

3.2.4 Age-appropriate food consistency: The consistency of food should gradually evolve (from soft to semi-solid to solid) with age, according to the child's requirements and abilities. Young children move from eating mashed foods, to finger foods, to family foods by the time they reach their first year. Inappropriate consistency can compromise nutrient intake, as children may only be able to consume a trivial amount. At the same time, diluting complementary foods to reduce viscosity can also lower their energy density,⁷¹ which is an increasing concern with the rise of pureed food pouches (see *Spotlight 1*). While pureed foods are needed for children with special needs (e.g., those with disabilities or developmental delays that make eating and drinking difficult), in most cases, the extended use of pureed foods can delay

** One cup of food is approximately 250 ml.

Spotlight 2

Considering the needs of children and caregivers with disabilities during the complementary feeding period

Malnutrition can cause disabilities and disability can also lead to malnutrition, creating a vicious cycle.⁸⁰ Some children with disabilities are more likely to be malnourished due to difficulties in swallowing and feeding, frequent illness, difficulties in absorbing nutrients, lack of caregiver knowledge on feeding, and neglect.⁸¹

Physical challenges with feeding may make mealtimes longer and require assistive devices and implements, such as mortars, food mills, blenders and other manual food processors used to make soft pureed foods. Caregivers may therefore require training and support to be able to feed their children safely and appropriately. For example, a stable, upright position with support for eating and drinking is one of the most important factors for safe swallowing. Wedged pillows or corner chairs, made by local carpenters, can facilitate this position during mealtimes.⁸² Spoons and forks with a fold or thicker handle are easier for children to hold and bring to their mouths, while a plate with steep sides makes eating easier for children who are blind or have mobility limitations as the edges help push the food on to the spoon or fork.

Children with disabilities are more likely to be overlooked in mainstream programmes and services. Situational analysis should therefore specifically consider the needs and rights of children with disabilities – with a systematic examination of the status, trends and determinants of poor diets for children with disabilities – in order to provide targeted support.

Households headed by people with disabilities often face barriers in accessing livelihoods and income-generating activities, affecting their food security and making it challenging to afford nutritious complementary foods. To address these situations, social protection programmes should be targeted to include children and caregivers with disabilities. In addition, mobility may be limited for some children or caregivers living with disabilities, restricting their ability to seek services, information, counselling, and support, particularly where community extension services are limited.

Caregivers and children with disabilities in humanitarian crises face unique challenges. They may not benefit from food distributions, food-for-work, or livelihoods programmes, which further limits their access to nutritious food. Food rations may also not accommodate special feeding needs,

such as modified food consistency.⁸³ These barriers are compounded when the caregiver also has a disability.



Ashley, 19, holds her 18-month-old son Jaycean, who has cerebral palsy, at her grandmother's home in Belize. © UNICEF/UN0148774/Mendez

the consumption of foods with varied textures and consistencies.⁷²

3.2.5 Safe preparation, storage and use:

Complementary foods should be hygienically prepared, stored and fed with clean hands, dishes and utensils. Caregivers should wash their hands with soap and practice good hygiene (including safe disposal of child's faeces) and proper food handling (including separating raw and cooked food).⁷³ Food will spoil quickly after contact with germs; thus children should be fed from a separate serving dish, with any leftovers discarded. Exposure to unsafe food and water increases the risk of microbial contamination and leads to diarrhoea and nutrient loss. To avoid food spoilage and contamination from insects, animals and bacteria:

- Food should be covered;
- Cooked food should not be left at room temperature for more than two hours;
- Food should be stored at low temperature (below 5°C) and preferably refrigerated;⁷⁴
- Raw and cooked food should be stored separately;
- Raw fruits and vegetables should be washed with clean water and stored in a cool place.

3.2.6 Responsive feeding and caregiving: Feeding require a reciprocal relationship between children and their caregivers. There are four stages of responsive feeding: (1) the child signals hunger or satiety through actions and expressions; (2) the caregiver recognizes the cues; (3) the caregiver's response is prompt, nurturing, and developmentally appropriate; and, (4) the child experiences the caregiver's response. Responsive feeding helps children develop self-regulation over food intake and facilitates their transition to eating independently.⁷⁵ Social interactions between caregiver and child (such as speaking to the child, singing, and encouraging him/her) also stimulate connections in the child's brain and promote cognitive development. Several studies have shown a positive association between responsive feeding and improved child nutrition.⁷⁶ Responsive feeding practices, where caregivers interact with the child and respond to his or her hunger and satiety cues, have been found to improve children's acceptance of food and adequate food intake.^{76, 77}

3.2.7 Feeding during and after illness: Caregivers should increase children's fluid intake during illness (including by frequent breastfeeding) and encourage the child to eat (for example, by offering soft, appetizing or favourite foods). After illness, caregivers should provide meals more frequently than usual and encourage the child to eat more.^{18, 78} Children in special circumstances (e.g., those with congenital abnormalities, allergies and disabilities) who have specific dietary requirements and needs, will require tailored support (*see Spotlight 2*).

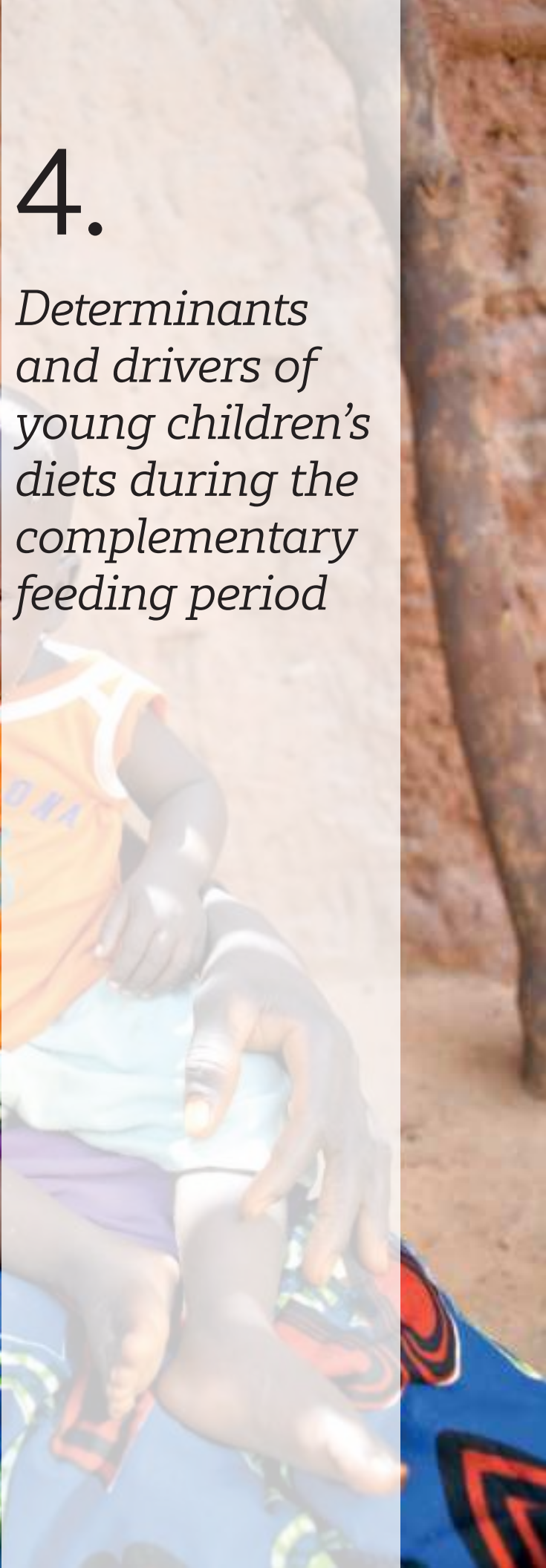
Children should have continued access to a nutritious and safe diet, at an **affordable** price, and obtained and prepared in a **sustainable** manner. Poor families spend a large proportion of their budget on food and may purchase low cost foods to afford other household purchases.⁷⁹ In many settings, unhealthy and nutrient-poor foods and snacks are less expensive than healthy foods. Sustainable diets are those that are accessible, culturally acceptable, affordable, nutritionally, adequate and safe. They are produced from food systems that protect biodiversity and ecosystems, while minimizing environmental degradation from food production.⁷⁹ *

* This Programming Guidance highlights the importance of sustainable diets; however, it is beyond its scope to address this issue comprehensively. This area of work will be explored further in future editions as UNICEF continues to develop its approach to delivering sustainable diets through food systems.



4.

Determinants and drivers of young children's diets during the complementary feeding period





The determinants of young children’s diets during the complementary feeding period include adequate complementary foods, adequate complementary feeding practices, and adequate nutrition services (Figure 3). These determinants are shaped by context-specific factors – referred to as drivers.

Together, the determinants and drivers of young children’s diets determine children’s ability to enjoy nutritious, safe, affordable and sustainable diets that protect, promote and support survival, growth and development.

4.1 ADEQUATE FOODS

The adequacy of foods to improve young children’s diets is driven by the availability, access, affordability and desirability of such foods.

4.1.1 Availability: Poor production, storage and distribution of nutritious food reduces its availability within households and markets and

increases its price.⁸⁴ Vulnerabilities and shocks to the food system due to climate change, seasonal fluctuations, diseases, conflicts, political instability, unemployment and rising food prices can also impact food availability and livestock and crop production.⁸⁵ The limited availability of nutritious food is a barrier to consumption, even when caregivers can afford such foods.

4.1.2 Access: Long distances to markets, poor roads and infrastructure, and humanitarian crises can make it difficult for families to access nutritious foods. Seasonality of production also impacts the availability of nutritious and diverse foods.⁸⁶⁻⁸⁸ Conflict may impede access to production activities, such as planting, harvesting and livestock movement. Children’s access to nutritious foods is also influenced by food industry marketing and the presence or absence of a protective policy environment (Spotlight 4).

4.1.3 Affordability: Nutrient-rich foods – particularly animal-source foods – can be too costly for many families, leading to poor dietary diversity in children.^{40, 89, 90} Fortified complementary foods are also expensive relative to unfortified cereals.⁴⁰ Household purchasing power is often determined by income, intra-household allocation of financial resources and the support provided by safety net programmes. Humanitarian crises can also significantly raise food prices by limiting food production and the supply of diverse foods.

4.1.4 Desirability: The increasing availability of low-cost processed and ultra-processed foods, snacks, and sugar-sweetened beverages increases their desirability and consumption in children.⁹¹⁻⁹³ Foods of lower nutritional value often cost less per calorie and tend to be selected by households with lower socioeconomic status.^{94, 95} Street foods and processed foods are convenient, low in nutrient quality, and readily available for those with limited time.^{96, 97}



Figure 3: Determinants of young children’s diets

4.2 ADEQUATE SERVICES

Health, nutrition, water and sanitation, and social protection services play a critical role in influencing the quality of children's diets. The adequacy of these services is driven by their availability, affordability, use and quality.

4.2.1 Availability, affordability and use of health and nutrition services: Limited availability of preventive and curative services within the health system, such as nutrition counselling, micronutrient supplementation and the care of sick children, can undermine complementary feeding practices and limit the use of such services by families.^{98, 99} Access to health and nutrition services may be further reduced during humanitarian crises. Where health and nutrition services are available, high costs can deter their access and use.¹⁰⁰ User fees can make child health and nutrition services unaffordable to vulnerable households, thereby limiting contact with the health system and opportunities for counselling on complementary feeding.

4.2.2 Quality of health and nutrition services: It is not enough for services to be available; they must also be delivered with quality. High-quality nutrition counselling services to improve the diets of young children require consistent delivery of messages and support through multiple contact opportunities with caregivers.^{101, 102} Low-quality health and nutrition services are ineffective in changing feeding behaviours and can reduce the demand for and use of these services by families.¹⁰² The limited knowledge, inadequate skills and misconceptions of health workers and inconsistent messaging can contribute to poor quality counselling.^{6, 99} The capacity of health workers to deliver quality services is driven by multiple factors, including training methodology, supportive supervision, the availability of tools and job aids, access to adequate human resources, remuneration, regularity of payment and workload.¹⁰³

4.2.3 Availability, quality and use of social protection services: Social protection programmes can improve household purchasing power and food security, increasing the likelihood that nutritious foods will be made available for young children.^{104, 105} Such programmes for vulnerable

households are particularly important in times of stress or shocks.^{106, 107} The provision of food vouchers for households with children, for example, can provide vital support for improving children's diets during emergencies.¹⁰⁸ Social protection programmes may also be used to incentivize the use of health and nutrition services. The quality of such programmes is key: well-planned, designed and implemented social protection programmes are most effective at targeting vulnerable and food insecure households and influencing behaviours.

4.2.4 Availability, quality, affordability and use of water and sanitation services: Access to basic water, sanitation and hygiene (WASH) services in the household, community and health facility improves hygiene and sanitation behaviours and ensures the safety of complementary foods. The availability of toilet facilities, refuse collection, safe water and other sanitation services reduces the risk of contaminating feeding utensils and complementary foods. In contrast, long distances to a safe water source and high costs of water and sanitation services can limit access and force caregivers to use inferior services.

4.3 ADEQUATE PRACTICES

The feeding, care and hygiene practices of caregivers are key determinants of the quality of young children's diets. These practices are driven by caregivers' knowledge and time, household dynamics and social norms.

4.3.1 Caregiver knowledge: Caregivers' knowledge and behaviours on how to produce, store, process and use nutritious foods are an important determinant of children's diets.¹⁰⁹ Lack of knowledge and experience reduces caregivers' ability to make appropriate food purchasing decisions and limits their acceptance and use of diverse foods.¹¹⁰

4.3.2 Caregiver time: Work and household responsibilities constrain caregivers' time and affect their ability to prepare and feed nutritious foods at the recommended frequency. Women are the primary caregivers of young children in most contexts, and in many settings, their time is taken by household chores, such as fetching firewood or water, agricultural labour, and other non-farm employment, leaving limited time and energy for childcare. In urban areas, working parents face important time

constraints in preparing nutritious meals and frequently feeding their children. The choice of complementary foods is therefore often shaped by convenience and the desire to balance time for food preparation with other household demands.

4.3.3 Household dynamics: Children’s diets are shaped by the distribution of food within the household, the prioritization of nutritious diets for children, women’s decision-making in food purchasing, and gender preferences in feeding children. The caregiver’s ability to provide appropriate feeding and care to their young child is also impacted by factors such as stress, emotional well-being and mental health).¹¹¹ These intra-household dynamics can be improved with support from social protection programmes, interventions to support caring of caregiver, as well as through gender-sensitive health and nutrition programmes that foster women’s empowerment and men’s participation in feeding, care and child-rearing.¹¹²

4.3.4 Social norms: Social and cultural norms influence what, when and how children are fed.^{106, 113, 114} The knowledge, beliefs and behaviours of family members (particularly mothers, fathers, grandmothers and older women) strongly influence complementary feeding practices^{115, 116} and the demand for health services.



5.

*Evidence on
what works
for improving
young children's
diets*





This section presents key interventions for improving young children's diets and describes their supporting evidence base. Annex 1 synthesizes further evidence on the effectiveness of these interventions for improving child growth outcomes.

5.1 NUTRITION COUNSELLING AND SOCIAL AND BEHAVIOUR CHANGE COMMUNICATION

Nutrition counselling and social and behaviour change communication (SBCC) involve the strategic use of communication approaches across a variety of channels to promote changes in knowledge, attitudes, norms, beliefs and behaviours.¹¹⁷ To date, nutrition counselling and SBCC have been the primary approaches used to improve complementary feeding practices.

Nutrition counselling and SBCC, provided alone or in combination with other interventions, are effective in improving complementary feeding practices, caregiver knowledge on feeding practices and nutrition outcomes.^{118, 119} They are also effective in improving dietary diversity, the consumption of iron-rich foods, the consumption of a minimum acceptable diet and child growth outcomes (such as HAZ and WAZ).^{99, 101, 120-124} While nutrition counselling and SBCC can improve complementary feeding outcomes, their effectiveness depends on access to diverse and nutritious foods at the household level.¹⁰¹

To make an impact, nutrition counselling and SBCC must be intensive, sustained, action-oriented and integrated in routine health service delivery.^{99, 122} This includes clear messages, delivered with consistency and desired intensity through multiple communication channels. Spotlight 3 provides an overview of evidence-based best practices supporting nutrition counselling and SBCC to improve young children's diets.

5.2 COUNSELLING AND EDUCATION ON RESPONSIVE FEEDING AND STIMULATION

Responsive feeding happens when caregivers encourage children to eat, provide food in response to their appetite and satiety signals and feed them with care. Counselling on responsive feeding can promote self-feeding, improve nutrient intake, and reduce the risk of undernutrition and overweight.^{77, 125, 126} Growth and brain development depend on good nutrition, stimulation and caregiver emotional responsiveness. Therefore, supporting caregivers to use mealtime as an opportunity for social interaction can improve child growth and development.^{76, 127} Further evidence is needed to understand how response feeding interventions can be integrated and scaled-up as part of complementary feeding programmes across diverse contexts, and how non-responsive feeding may contribute to child overweight.^{75, 128, 129}

5.3 ACCESS TO DIVERSE AND NUTRITIOUS COMPLEMENTARY FOODS AT HOUSEHOLD LEVEL

Interventions to improve access to nutritious foods at household level are key to supporting optimal growth and development in young children. In a study of one high stunting context, providing one egg a day to young children for a period of six months improved their growth (LAZ and WAZ) and decreased stunting.¹³⁰ A longitudinal follow-up after two years showed continued reduction in growth faltering; however, the effects on linear growth were not sustained.¹³¹ In other contexts, meat supplements¹³² and dietary modification (through the production and consumption of animal-source foods and orange-red fruits such as papayas and mangoes) improved dietary diversity. Such interventions also improved linear growth and reduced anaemia and other micronutrient deficiencies.¹²⁴ Further evidence is needed from a range of programme settings to understand how these interventions can be scaled-up to improve children's diets.

Spotlight 3

Best practices for enhancing the effectiveness of nutrition counselling and SBCC in improving young children's diets

- ☞ Identify priority complementary feeding behaviours using formative research and qualitative approaches to understand underlying determinants of poor diets and feeding practices, access to nutritious and affordable complementary foods, and key influencers of behaviours.

- ☞ Design interventions and prioritize actions to address key barriers to quality diets for young children.

- ☞ Test key programming approaches, messages, training and communication content, and tools for feasibility, acceptability and clarity, prior to implementation at scale.

- ☞ Select multiple communication channels to deliver consistent messages and achieve desired coverage, quality, intensity, and scale;⁹⁹

integrate existing tools (e.g., first foods videos) and use of innovative approaches (e.g., digital and social media), where feasible.

- ☞ Align key messages into the capacity development of service providers, frontline workers, and other key influencers at household, community and facility levels, targeting both technical and functional capacities; and conduct continued needs assessments, supportive supervision and monitoring.

- ☞ Begin counselling and SBCC before children reach 6 months of age to address the timely introduction of food and continue age-appropriate messages until 24 months of age, including with family members who are involved in feeding or influence the food and household environment.

- ☞ Conduct nutrition counselling in individual or group settings and include feeding demonstrations and opportunities for peer-to-peer problem-solving (e.g., via mother support groups).

- ☞ Promote collaboration among paid health staff, frontline workers and volunteers to achieve the desired number of counselling contacts.

- ☞ Implement nutrition counselling and SBCC in conjunction with other evidence-based interventions, such as food-based approaches or systems strengthening interventions.

- ☞ Sustain comprehensive nutrition counselling and SBCC approaches for at least two years, with continuous monitoring and adjustments,¹²² and document learnings.



Enhancing agricultural production of nutritious foods is another way to improve access to diverse children's diets. Support through agricultural inputs and extension services, small livestock production and homestead food production has shown to improve the availability of nutritious and safe complementary foods.^{84, 133.}

¹³⁴ Agricultural production alone may be insufficient to improve child nutrition outcomes; however, when combined with nutrition counselling, SBCC, home visits and food demonstrations, agricultural interventions can improve caregiver knowledge, enhance feeding practices, and increase the likelihood of children receiving the minimum acceptable diet.^{84, 135, 136} These interventions have also been shown to improve young children's growth, haemoglobin levels, and nutrient intake.^{133, 135-137}

5.4 USE OF VITAMIN AND MINERAL SUPPLEMENTS IN SETTINGS WHERE NUTRIENT-POOR DIETS PREVAIL

When integrated into programmes to improve complementary feeding, vitamin and mineral supplements such as MNPs, can be added to home prepared foods to enhance the quality of children's diets by providing adequate nutrients to prevent micronutrient deficiencies.* WHO recommends home fortification with iron containing MNPs for young children in settings where nutrient-rich foods are inaccessible or unaffordable, or where the prevalence of anaemia in children is greater than 20 percent.¹³⁸ The integration of MNPs into IYCF programmes should always be coupled with counselling on its use and nutrition education to improve complementary feeding practices.

There is a strong evidence to support the effectiveness of MNPs in preventing anaemia and iron deficiency in children aged 6–23 months.¹³⁹⁻¹⁴³ MNP integration into IYCF programmes has been shown to incentivize participation,¹⁴⁴ increase caregiver knowledge on appropriate complementary feeding,^{142, 145} improve the consistency of complementary foods,^{146, 147} facilitate timely initiation of solid foods at 6 months of age, improve dietary diversity, and improve population-based feeding indicators.^{142, 148} It may also increase linear growth in children.¹⁴⁹ Implementation strategies for MNPs should be not be implemented in isolation and

* Some countries may integrate the use of other mineral and vitamin supplements such as multiple micronutrient syrups or chewable tablets for young children in their programmes; however, this is not covered in the Programming Guidance.

integrated into all areas of IYCF programming, including policy development, formative research, delivery mechanisms, SBCC, and monitoring and evaluation to ensure they reinforce appropriate complementary feeding practices.¹⁵⁰

5.5 ACCESS TO FORTIFIED FOODS AS NEEDED, ALIGNED WITH GLOBAL AND NATIONAL STANDARDS

Fortified foods can improve complementary feeding and children's nutritional status in settings where nutrient-poor diets are common and access to diverse foods is limited.⁷ Promoting access to fortified complementary foods with or without nutrition counselling can improve children's linear growth in food-insecure settings,¹²³ though more evidence is needed from food-secure settings. Fortified blended foods containing locally available cereals and pulses (such as a corn-soya blend), have shown to be particularly effective in humanitarian response.^{151, 152} The provision of specialized fortified products, such as small quantity-lipid-based nutrient supplements (SQ-LNS), in combination with nutrition counselling and SBCC, may also improve feeding practices, though their impact on improving dietary diversity is limited.¹⁵³ Recent evidence from low- and middle-income countries¹⁵⁴ suggests that SQ-LNS, in combination with complementary feeding, have the potential to improving growth outcomes (stunting, wasting and underweight) and anaemia among young children. These products are costly, however, and their integration into routine programming may be cost prohibitive.

Interventions to improve access to fortified complementary foods should be implemented in line with international and national regulations, including the International Code of Marketing of Breast-milk Substitutes and relevant WHA resolutions, and the 2016 Guidance on Ending Inappropriate Promotion of Foods for Infants and Children (*Spotlight 4*).

5.6 ACCESS TO AFFORDABLE AND NUTRITIOUS FOODS THROUGH SOCIAL PROTECTION PROGRAMMES AND COUNSELLING SERVICES

Social protection programmes can improve access to affordable and nutritious complementary foods and nutrition counselling services among vulnerable households. Nutrition-sensitive social protection

services, such as cash transfers, integrated microcredit, and nutrition education can improve household food security, dietary diversity and caregiver empowerment.^{105, 155} They also address some of the basic causes of child malnutrition by narrowing the gaps in economic access and promoting women's decision-making. Certain types of social protection programmes, such as cash transfers, can increase the household budget for food purchase, which in turn influences what children eat.¹⁵⁶ In humanitarian situations, cash transfers can prevent negative coping responses to food scarcity (such as reducing the number of meals per day), improve dietary intake and access to diverse foods for children.¹⁵⁷

The integration of nutrition counselling and SBCC within social protection programmes is critical to ensure that the resources provided to the household are used to improve the diets of young children. Common approaches include combining cash transfers with nutrition counselling,^{158, 159} and providing fortified foods, curative and preventive health services (such as immunizations), growth promotion,¹⁶⁰ well-child visits,¹⁶¹ and MNPs.¹⁵⁸

5.7 ACCESS TO SAFE WATER AND CLEAN HOUSEHOLD ENVIRONMENTS FOR YOUNG CHILDREN

Nutrition counselling and SBCC on the recommended feeding practices, together with access to basic WASH services at household level, can improve caregiver knowledge of the recommended hygiene and sanitation behaviours and decrease faecal contamination of complementary foods.¹⁶²⁻¹⁶⁵

Evidence shows that community-level sanitation access has a greater impact on nutrition outcomes than household level access.¹⁶⁶ As such, community-wide WASH-nutrition approaches may be critical to significantly reduce environmental contamination to improve children's diets. It is vital to understand which of the fecal-oral routes are most relevant in a given context and ensure they are adequately targeted in programme design. Additional evidence is needed from implementation research and programme settings to understand the most effective design and scale-up of such integrated programmes.



Spotlight 4

Addressing the inappropriate promotion of foods for infants and young children

In 2016, WHO developed *Guidance on ending the inappropriate promotion of foods for infants and young children*.^{44, 167} The Guidance covers all commercially produced foods and beverages that are marketed as suitable for feeding children aged 6–36 months. Products are considered to have been “marketed as suitable” for this age group if they:

- are labelled with the words baby/babe/infant/toddler/young child;
- recommend an age of consumption of less than 3 years;
- use an image of a child that appears to be 3 years of age or younger or is feeding with a bottle; or
- are in any other way represented as suitable for children under the age of 3 years.

The Guidance defines ‘promotion’ as the communication of messages that are designed to persuade or encourage the purchase or consumption of a product or raise awareness of a brand. This includes advertising activities and materials, non-advertising promotions (such as special displays, sales, discount coupons and rebates, loss-leaders and tie-in sales), and labelling, packaging and claims.

The Guidance provides seven recommendations:

1. Optimal infant and young child feeding should be promoted based on the guiding principles for complementary feeding and feeding non-breastfed children aged 6–24 months, with an emphasis on nutrient-rich, home-prepared and locally available foods.

2. Products that function as breastmilk substitutes should not be promoted.

3. Foods for infants and young children that do not function as breastmilk substitutes should be promoted only if they meet all the relevant national, regional and global standards for composition, safety, quality and nutrient levels, and are in line with national dietary guidelines.

4. The messages used to promote foods for infants and young children should support optimal feeding and should not include inappropriate messages.

5. There should be no cross-promotion of breastmilk substitutes indirectly via the promotion of foods for infants and young children.

6. Companies that market foods for infants and young children should not create conflicts of interest in health facilities or throughout health systems. Health workers, health systems, health professional associations and non-governmental organizations should avoid such conflicts of interest.

7. The WHO set of recommendations on the marketing of foods and non-alcoholic beverages to children¹⁶⁸ should be fully implemented, with particular attention to ensuring that settings where infants and young children gather are free from all forms of marketing of foods high in fats, sugars or salt.





6.

*Action
framework to
improve the
diets of young
children
during the
complementary
feeding period*





Improving young children’s diets requires countries to deliver programmes grounded in evidence-based interventions (*described in section 5*) at scale, with quality and equity. To achieve the desired impact, such interventions must be designed and implemented to respond to the context-specific drivers of children’s diets. These interventions will be implemented through one or more systems – food, health, water and sanitation, and social protection (*explored further in section 6.2*).

The *Action Framework to Improve the Diets of Young Children During the Complementary Feeding Period* (hereafter referred to as the Action Framework) is a tool for facilitating programming to improve the diets of children aged 6–23 months. Applying the Action Framework facilitates a systematic analysis of the context-specific drivers of poor diets during the complementary feeding period and prioritizes strategic actions for addressing them through relevant systems (*Figure 4*). The Action Framework enables UNICEF staff serving in regional and country offices to support governments and partners in the design, implementation and monitoring of evidence-based programmes to improve the diets of young children.

6.1 ELEMENTS OF THE ACTION FRAMEWORK

The Action Framework has seven elements that interplay to facilitate the design and implementation of evidence-based programmes. This section describes these elements and how they contribute to the outcome of nutritious, safe, affordable and sustainable diets (i.e. good diets) for young children.

6.1.1 Situation analysis to understand the status and drivers of young children’s diets

Situation analysis is the first step to designing an evidence-based programme. A sound situation analysis helps the country team identify the context-specific drivers of children’s diets and prioritize strategic actions. Situation analysis for complementary feeding programmes entails a systematic examination of the status, trends and drivers of poor diets for young children. It should be informed by a review of quantitative and qualitative data (e.g., from Demographic Health Surveys, National Nutrition Surveys, other national and local surveys and studies), the policy environment, existing programme service delivery, and interviews with stakeholders in government, UN agencies and non-governmental organizations.

Barriers to nutritious diets should be assessed through a market analysis of locally available foods, including their availability and promotion, and public perceptions of commercially produced complementary foods (*see Annex 3 and 4*). A mapping of country stakeholders and partnerships is a vital component of the situation analysis, which should be undertaken through a consensus building process with the government and partners. Engaging national stakeholders in this process promotes national ownership and programme sustainability.

Evidence on food consumption patterns, cost of diets and nutrient gap analyses for children aged 6–23 months should also be reviewed to understand the magnitude of dietary limitations.¹⁶⁹⁻¹⁷¹ Annex 2 describes some of the tools available to aid such analyses. In emergency contexts, it is also important to understand pre-existing nutrient gaps versus those that have been exacerbated by the situation. There is also a need to understand the risks inherent in emergency contexts and identify the actions needed to strengthen systems or enhance preparedness to ensure that programmes can scale up or down in response (*see Spotlight 7*).

Action Framework to Improve the Diets of Young Children During the Complementary Feeding Period

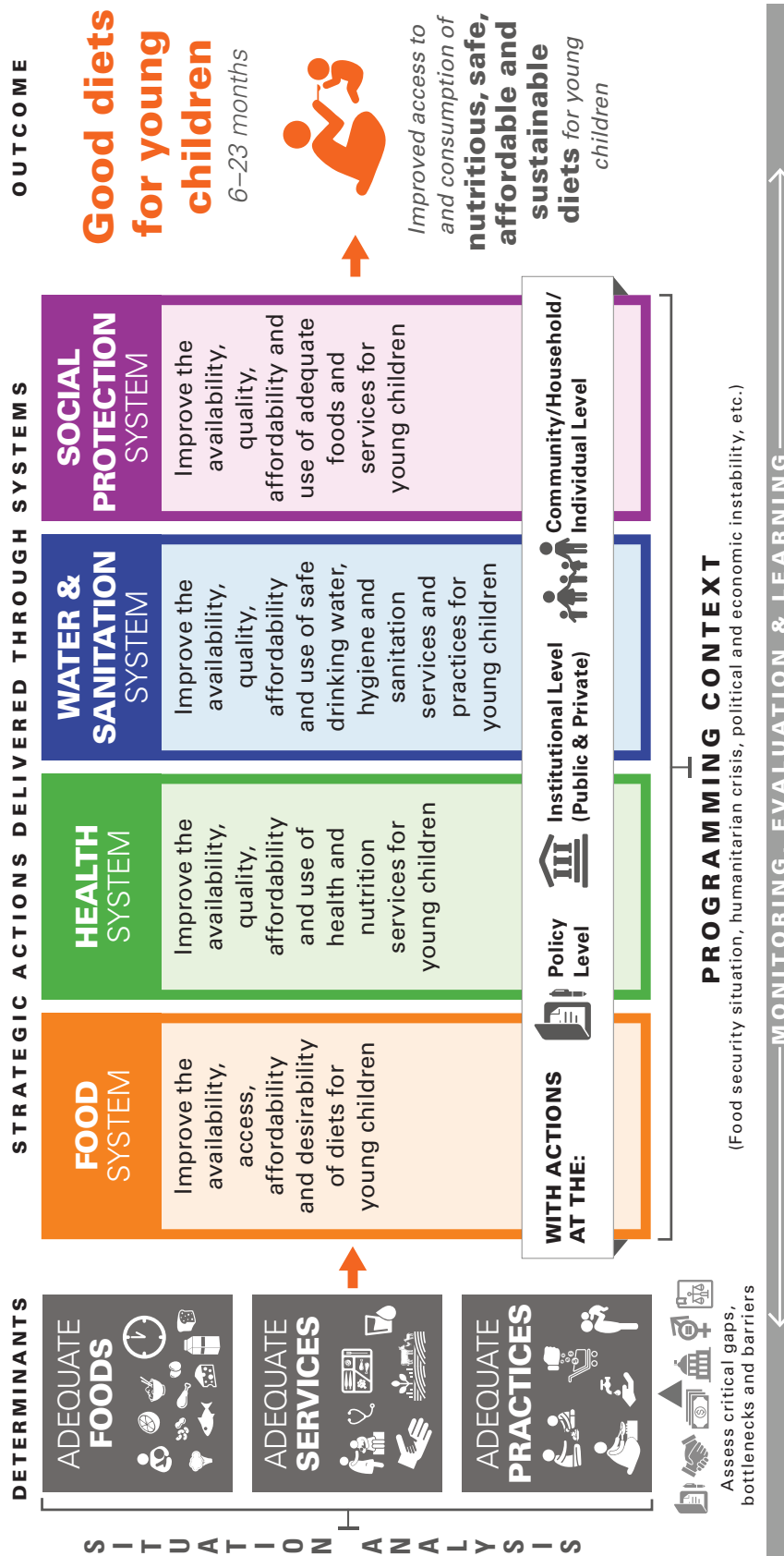


Figure 4: Action Framework to Improve the Diets of Young Children during the Complementary Feeding Period

Situation Analysis

Review of qualitative and quantitative data



Figure 5: Core components of situation analysis for programmes to improve the diets of young children

The core components of a complementary feeding situation analysis are illustrated in Figure 5. Annex 3 provides key guiding questions for each of these components.

6.1.2 Determinants and drivers of young children's diets

As outlined in section in 4, adequate foods, adequate services and adequate practices are the underlying determinants of good diets for young children. These determinants are driven by contextual factors (i.e. drivers), that enable or inhibit a child's access to and regular consumption of nutritious, safe, affordable and sustainable diets.

An in-depth analysis of the gaps, bottlenecks and barriers to adequate foods, services and practices is critical to explore why young children's diets are not improving in a particular context. This process should ideally be built into the country situation analysis and should consider: (1) the policy environment (*policies, legislation, multisectoral collaboration, accountability*); (2) the institutional capacity to plan, finance and implement; and (3) behaviours at household level

(including *women's empowerment, intra-household dynamics and gender roles*).

Situation analysis in a country may highlight the lack of access to diverse foods at household level as a key determinant of inadequate child diets. A more in-depth analysis may reveal that national policies are not addressing children's needs, gaps in institutional capacity are restricting service delivery, the lack of food-based dietary guidelines is limiting the production of diverse foods, and women's role in agriculture is restricting their time for child feeding and care.

Spotlight 5

Systems-strengthening to improve the diets of young children

Systems-strengthening is a guiding principle of UNICEF programming in all contexts. It involves developing the government's institutional capacity to deliver and monitor actions to improve children's diets, including through support to expand human resource capacity, improve service delivery,

develop standards and guidelines, establish information and accountability systems, and improve governance and financing. When systems-strengthening efforts continue during emergencies they can promote community resilience and help institutionalize actions to improve children's diets over the long-term.



6.1.3 Implementing strategic actions through systems

Implementing strategic actions to achieve the outcome of good diets for young children will require UNICEF to influence and leverage the potential of four systems: food, health, water and sanitation, and social protection. Section 6.2 explores these system-specific actions in further detail.

Strategic actions address the context-specific gaps, bottlenecks and barriers to good diets for young children. In prioritizing strategic actions, UNICEF country offices should consider the evidence-based interventions for improving young children's diets, the programming context (described below), UNICEF's comparative advantage, human and financial resources, access to resources in the country, and the activities planned by partners and stakeholders.

The actions prioritized at country level should be specific, costed, and include accountabilities for different stakeholders, including government and partners. This should occur through a consultative process, preferably via national nutrition coordination platforms such as the Scaling Up Nutrition movement and Nutrition Cluster platforms.

At policy level, actions may involve advocating for policies, legislation, plans, budgets, coordination, partnerships and accountability mechanisms for improving young children's diets. These are essential building blocks for a strengthened enabling environment that can catalyse change at country level (*see Spotlight 6*).

At institutional level, actions may involve systems-strengthening to boost the government's institutional capacity to deliver and monitor evidence-based actions to improve children's diets (*see Spotlight 5*).

6.1.4 Programming context

The programming context is defined as the setting in which the country programming is being implemented. It takes into account contextual features such as food insecurity, emergencies, urbanization, and political and economic instability. Spotlight 7 illustrates how food insecurity, humanitarian crises, and the double burden of malnutrition can influence the prioritization of strategic actions at country level.

6.1.5 Monitoring, evaluation and learning

Monitoring, evaluation and learning (MEL) is central to the design and implementation of complementary feeding programmes. Further details are provided in Section 7.

Spotlight 6

The building blocks of an enabling environment for improving young children's diets

Supportive policy and legal frameworks

A policy landscape analysis is an important first step in identifying gaps in the policies and legal frameworks driving complementary feeding outcomes and advocating with the government to address them (*Annex 3*). Providing technical support to government is also critical to formulating comprehensive national policies and legislation, and implementing, monitoring, enforcing and evaluating them.

Strengthened institutional coordination

Improving young children's diets requires coordinated service delivery across sectors, such as health, agriculture, social protection, water and sanitation, and the private sector. This entails strengthening multisectoral plans, budgets and coordination, together with stakeholder mapping and clearly defining the roles and accountabilities of government and non-state actors in accomplishing planned outcomes.

Leveraging financial resources

Improving young children's diets will require leveraging financial resources to implement priority actions at national and decentralized levels across relevant sectors. This entails advocacy and technical support to the government in developing costed actions plans and advocacy with partners to invest in relevant actions at national and sub-national level.

Strengthened results-based programme design and implementation

Providing technical support to a range of government departments can help strengthen national plans, strategies, budgets and monitoring systems for improving young children's diets. This includes fostering coherence and linkages across sector plans, strategies and budgets directed towards a common nutrition outcome.

Understanding and shifting social and cultural norms around young child feeding

Improving young children's diets also involves examining and attempting to shift harmful social and cultural norms, including those related to gender roles and the stigma attached to disability. A situation analysis can help identify the critical social norms, beliefs and taboos hindering adequate child

feeding practices and address them through SBCC. Key components of social change include sustainability through local ownership; empowering communication; an emphasis on dialogue, debate, and negotiation; and an emphasis on communities and families as the agents of their own change.



Spotlight 7

Prioritizing strategic actions according to programme context

A. Food insecurity

Food security – measured through food availability, accessibility, use and the stability of these dimensions over time – is an underlying determinant of poor diets in young children.⁸⁵ Food insecurity can be chronic or transitory, and may persist through droughts, famines, localized food shortages, high food prices and seasonal variations.¹⁷²

Programmes designed in the context of food insecurity should focus on removing barriers to the availability, access, and use of affordable, nutritious foods, taking into consideration seasonal fluctuations and the capacity of systems to deliver. Actions may include improving options for storage, processing and packaging of nutrient-rich foods, stimulating food production during lean months (e.g., through home-based gardening), providing fortified foods or vitamin and mineral supplements, and strengthening linkages with social protection programmes and nutrition counselling.

B. Humanitarian crises

Humanitarian situations are characterized by limited access to safe food and clean water and a breakdown in basic health services.¹⁷³ Security challenges,

stress, lack of access to cooking fuel, and poor access to a clean environment may affect caregivers' ability to provide safe and nutritious complementary foods to children. Improving children's diets during emergencies requires a response grounded in sound situation analysis, systems with the capacity to deliver, and available resources. The approach should involve building institutional capacity and supporting the government to mitigate the effect of humanitarian crisis and facilitate sustainable recovery.

In sudden onset emergencies, immediate responses may include provision of food assistance, safe drinking water, and cooking equipment. In cases of migration, the provision of nutrient-rich complementary foods through onsite supplementary feeding programmes and the distribution of food rations for households with young children may be prioritized. In economic and slow onset emergencies, ensuring sustained access to nutritious and healthy complementary foods may require reliance on cash transfers (or similar programmes), which can be used to increase household resources for food and improve access to nutrition services.

C. The double burden of malnutrition

The double burden of malnutrition* has led to a shift towards diets characterized by refined and processed foods that are high in sugar, fat and salt, and low in nutrient density.¹⁷⁴ This in turn has led to increased caloric consumption, especially in urban areas in low- and middle-income countries, resulting in rising rates of childhood overweight, obesity and micronutrient deficiencies.

Situation analysis should assess both undernutrition and overweight-related drivers and their distribution by geographic location, socio-economic status, and sex. Policies to address the double burden may focus on regulating the nutrient content of commercial complementary foods to align with food-based dietary guidelines. Further, the promotion of diversified diets can prevent both overweight and undernutrition in children. Countries should also consider policies to improve the external food environment (such as sugar-sweetened beverage taxes), which can decrease the risk of overweight. Finally, understanding the drivers of caregiver decisions to purchase unhealthy food is critical.

* The double burden refers to the simultaneous existence of multiple forms of undernutrition and overweight within individuals, households and populations at various points across the life course.



Leveraging the power of multiple systems in achieving good diets



6.2 DELIVERING STRATEGIC ACTIONS THROUGH SYSTEMS

For UNICEF, a systems approach aims to leverage the potential of food, health, water and sanitation, and social protection systems* and make them more accountable for delivering nutrition results for young children. Rather than simple coordination among systems, a systems approach requires a shared vision, joint planning and monitoring. Leveraging the power of multiple systems expands the number of opportunities to reach children and improve their diets in a more comprehensive and systematic way. Indeed, each system has a role to play in achieving the outcome of good diets for young children (*Figure 4*).

The Action Framework can be applied to each of the four systems to identify strategic actions to address the drivers of children's diets. Depending on the country-specific drivers, strategic actions, and programming context, the country should identify which system(s) need to be leveraged to accomplish the outcome of good diets for young children.

For example, improving dietary diversity requires a food system that can produce diverse local foods that are accessible to households; a health system with staff at facility and community level to provide education and counselling on optimal complementary feeding practices; a water and sanitation system that allows for hygienic food preparation and provides safe drinking water as an essential component of a healthy diet; and, a social protection system that helps poor families afford a variety of nutritious foods, have access to essential health and nutrition services, and adopt positive feeding, care and hygiene practices.

The section below presents an Action Framework for each system. While each framework can be applied in isolation, the actions illustrated will often be delivered in conjunction with actions through other systems to address the drivers of young children's diets.

* The education system does not directly influence the diets of children aged 6–23 months given that these children do not yet attend school/ pre-school; it is therefore not discussed in this guidance. However, where applicable, some actions indirectly related to the education system have been integrated throughout the document.

Delivering Through the Food System

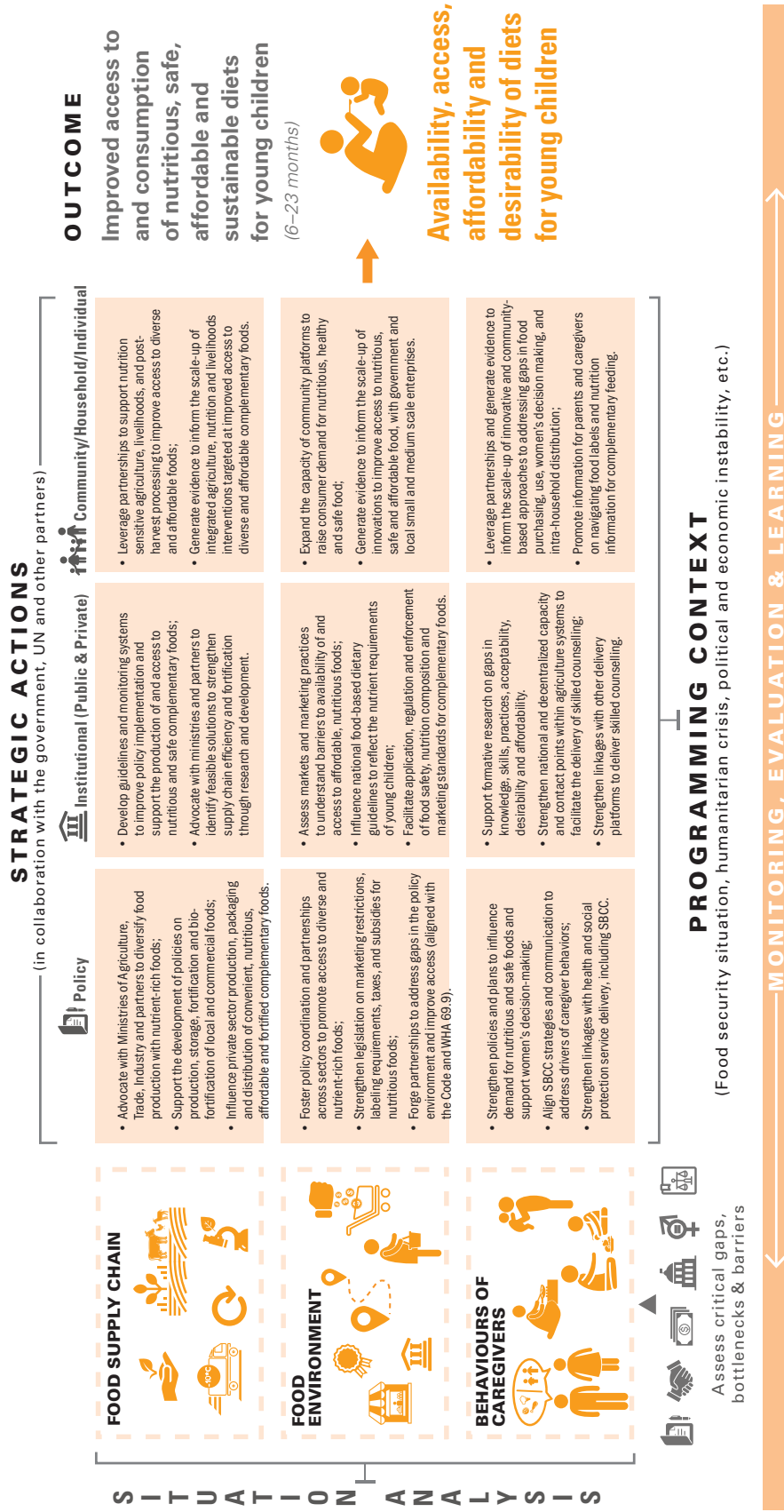


Figure 6: Delivering actions to improve young children's diets through the food system

6.2.1 Action Framework for Delivering through the Food System*

The food system encompasses all elements and activities related to the production, processing, storage, distribution, marketing, preparation, and consumption of food.^{175, 176} The food system is comprised of the food supply chain; the food environment; and the behaviours of caregivers around the foods they purchase and feed their children.¹⁷⁵

When food systems are designed with children in mind, they can make food more available, affordable, acceptable, and safe, making it easier for caregivers to make nutritious food choices.¹⁷⁷ When engaging with partners to shape the food system, caution is required to avoid conflicts of interest from companies that market foods for infants and children, as described in the WHO Guidance on the Inappropriate Promotion of Foods for Infants and Young Children.¹⁷⁸

This section reviews examples of food-system related drivers that need to be addressed to improve young children's diets and complements the discussion in section 4.

Food supply chain:

- Lack of nutrition-sensitive agricultural policies, programmes and investment plans;
- Limited technology and incentives to produce nutrient-rich crops;
- Limitations in appropriate post-harvest management technologies (e.g., lack of access to transportation, refrigeration, storage and other processing methods, and seasonality factors).

Food environment:

- Limited availability and affordability of nutritious foods in local markets;
- Poor regulation of commercially prepared complementary foods and inappropriate marketing of foods with limited nutritional value;
- High cost of nutritious and diverse complementary foods.

Behaviours of caregivers:

- Cultural preferences that limit the acceptability of recommended feeding practices;

- Limited caregiver time and high workload, making it difficult to prepare nutritious meals;
- Caregiver or family members preferences for the convenience and the desirability of unhealthy food.

Strategic actions for activating the food system to improve young children's diets

The Action Framework illustrates strategic actions that UNICEF may undertake in collaboration with the government and partners at the policy, institutional, and community/household level to address the drivers of children's diets through the food system (Figure 6). The actions proposed in the Action Framework are illustrative rather than exhaustive and should be adapted and expanded according to the country context.



At policy level, actions to influence the food system may include advocacy, policy development and fostering coordination across relevant sectors to increase access to nutrient-rich foods for young children; strengthening protective legislation on the marketing of foods and beverages to children; and promoting alignment with international norms and standards (e.g., the Code and WHA resolution 69.9).



At institutional level, actions to influence the food system may include supporting the development of food-based dietary guidelines, strengthening monitoring systems, gaining a better understanding of markets, strengthening capacity across sectors, and using innovative marketing strategies to create market demand for healthy food choices.



At community/household/individual level, actions to influence the food system may include leveraging community platforms to raise consumer demand for nutritious foods, engaging with key influencers, fostering partnerships to scale-up community-based approaches, and supporting nutrition-sensitive agriculture and livelihoods.

* The Action Framework for delivering through the food system expands on the Innocenti Conceptual Framework of food system and illustrates strategic actions for improving the diets of young children.

Delivering Through the Health System

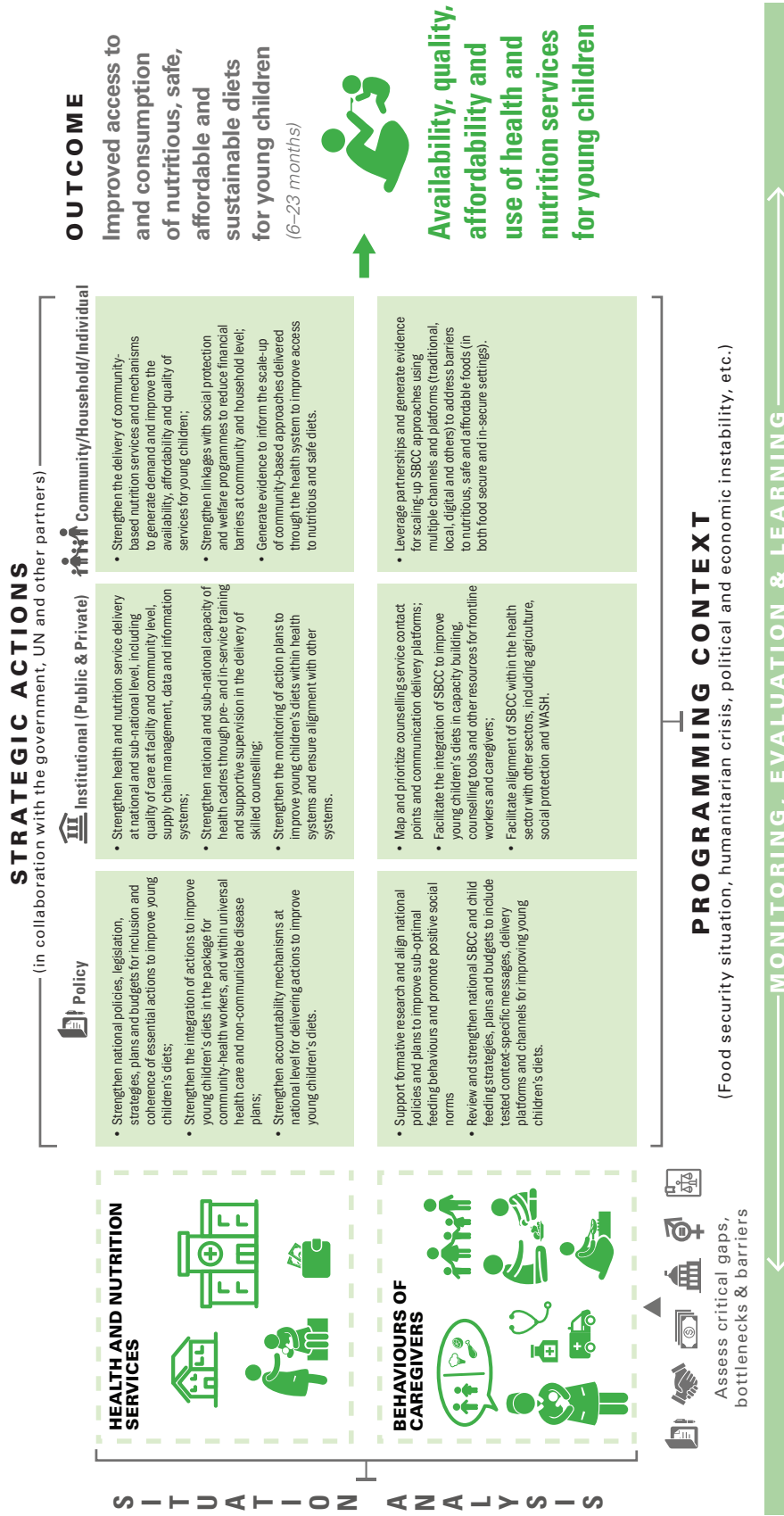


Figure 7: Delivering actions to improve young children's diets through the health system

6.2.2 Action Framework for Delivering through the Health System

A strong health system includes preventive and curative services, supports optimal health, nutrition and hygiene practices, and contributes to equitable health outcomes for all children. The health system has traditionally led efforts to improve complementary feeding and is a key platform for delivering health and nutrition services such as skilled counselling, nutrition education, outreach and SBCC.⁵ It also provides important contact points, such as well-child and sick child visits, growth monitoring and promotion, and immunization visits, which can be used to promote optimal complementary feeding behaviours. Engaging with the health system therefore offers important opportunities to improve the availability, quality, affordability and use of health and nutrition services at the facility and community level.

This section reviews examples of health system related drivers that need to be addressed to improve young children's diets and complements the discussion in section 4.

Health and nutrition services:

- Poor capacity of health providers and those providing community extension services, as well as health worker shortages, which limit the adoption of appropriate practices;
- Limited access to affordable nutrition and health care services, including long distances to reach health centers.

Behaviours of caregivers:

- Inadequate caregiver knowledge and harmful attitudes and beliefs, which may also be influenced by others, such as mothers-in-law and community leaders;
- The inappropriate health-seeking behaviours of caregivers, their households and communities, which limit their ability to access health and nutrition services;
- Household dynamics, such as lack of time and poor food distribution.

Strategic actions to activate the health system to improve young children's diets

The Action Framework illustrates strategic actions that UNICEF may undertake in collaboration with government and partners at the policy, institutional, and community/household level to address the drivers of children's diets through the health system (Figure 7). The actions proposed in the Action Framework are illustrative rather than exhaustive and should be adapted and expanded according to the country context.



At policy level, actions to influence the health system may include strengthening health and nutrition-related policies, strategies, plans and budgets; strengthening delivery platforms and communication channels in national SBCC strategies and plans using tested, context-specific SBCC messages; integrating child nutrition into plans for universal health care and non-communicable diseases; and strengthening national accountability mechanisms.



At institutional level, actions to influence the health system may include strengthening the capacity of the health system to deliver quality services; enhancing capacities for evidence-based analysis, prioritization, planning, budgeting, and multisectoral coordination; advocating for innovative pre-service and in-service training, mentoring and supportive supervision of health workers; and strengthening monitoring mechanisms to improve service quality.



At community/household/individual level, actions to influence the health system may include strengthening the delivery of community-based nutrition services; building the capacities of community platforms to generate demand and improve access to quality health and nutrition services; strengthening linkages with social protection programmes to reduce financial barriers; and generating evidence for community-based approaches to improving children's diets.

Delivering Through the Water and Sanitation System

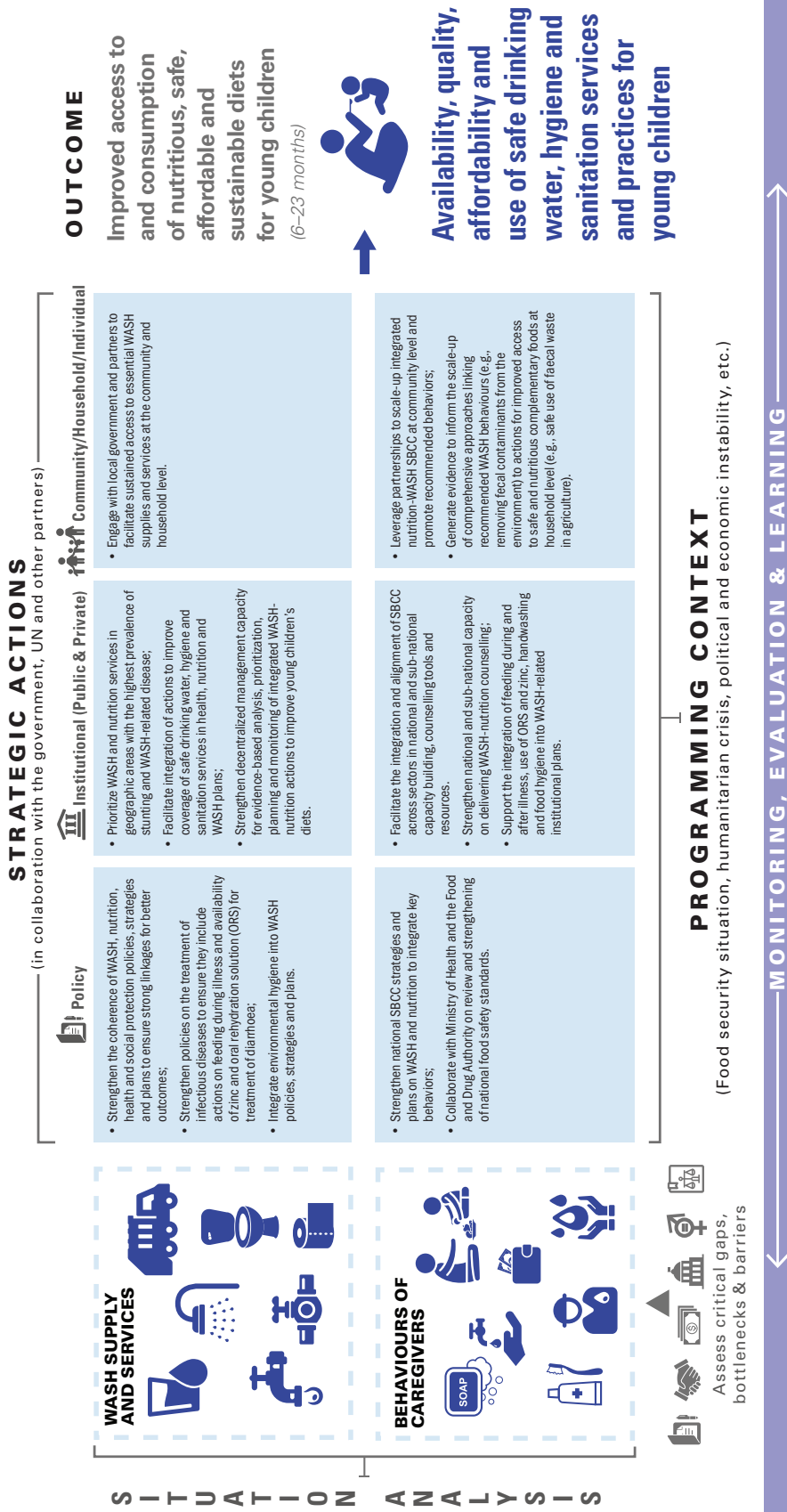


Figure 8: Delivering actions to improve young children's diets through the water and sanitation system

6.2.3 Action Framework for Delivering through the Water and Sanitation System

The water and sanitation system is comprised of the policies, programmes, services, and actors that ensure a population's access to and use of safe drinking water and sanitation. This system is critical to protecting young children's diets, as poor water, sanitation and hygiene can expose children to pathogens that cause diarrhoea and other infections and can result in environmental enteropathy, leading to impaired structure and function of the small intestine.¹⁷⁹ Improved access to basic water and sanitation services can reduce the risk of diarrhoea,¹⁸⁰ helminth infections,¹⁸¹ environmental enteric dysfunction (enteropathy)¹⁸², and anaemia.

Community-based platforms and contact points provide important opportunities to promote recommended WASH behaviours at community, household and facility level. Strong water and sanitation systems are therefore essential to improving the availability, quality, affordability and use of safe drinking water, hygiene and sanitation services for young children.

This section reviews examples of water and sanitation system-related drivers that need to be addressed to improve young children's diets and complements the discussion in section 4.

WASH supply and services:

- Limited availability of functional toilets, waste treatment, and other WASH supplies and services;
- Poor access to WASH supplies, such as soap for handwashing;
- Constraints in access to clean drinking water sources, especially those within walking distance, which influences the time caregivers spend on household activities.

Behaviours of caregivers:

- Limited caregiver and family members' knowledge and skills on safe handling of animal and human faeces, food preparation, food storage, and handwashing with soap;
- Limitations in the demand for WASH services, the willingness and ability to pay for services, and the use of latrines and other services at the community and household level.

Strategic actions to activate the water and sanitation system to improve young children's diets

The Action Framework illustrates strategic actions that UNICEF may undertake in collaboration with government and partners at the policy, institutional, and community/household level to address the drivers of children diets through the water and sanitation system (*Figure 8*). The actions proposed in the Action Framework are illustrative rather than exhaustive and should be adapted to country context.



At policy level, actions to influence the water and sanitation system may include strengthening integrated WASH, nutrition and health policies; reviewing national SBCC strategies and plans across sectors to ensure that recommended WASH and nutrition behaviours are integrated; and tracking nutrition and WASH indicators in the monitoring systems of all relevant sectors.



At institutional level, actions to influence the water and sanitation system may include strengthening capacities for evidence-based analysis, prioritization, planning and monitoring of integrated WASH-nutrition actions during complementary feeding period; developing counselling tools and resources for frontline workers and caregivers; and strengthening capacities for counselling and outreach platforms.



At community/household/individual level, actions to influence the water and sanitation system may include advocating for consistent access to essential WASH supplies; leveraging partnerships to scale-up integrated nutrition-WASH SBCC approaches; and generating evidence on community-based approaches that link the recommended WASH behaviours with actions for improving access to safe and nutritious complementary foods.

Delivering Through the Social Protection System

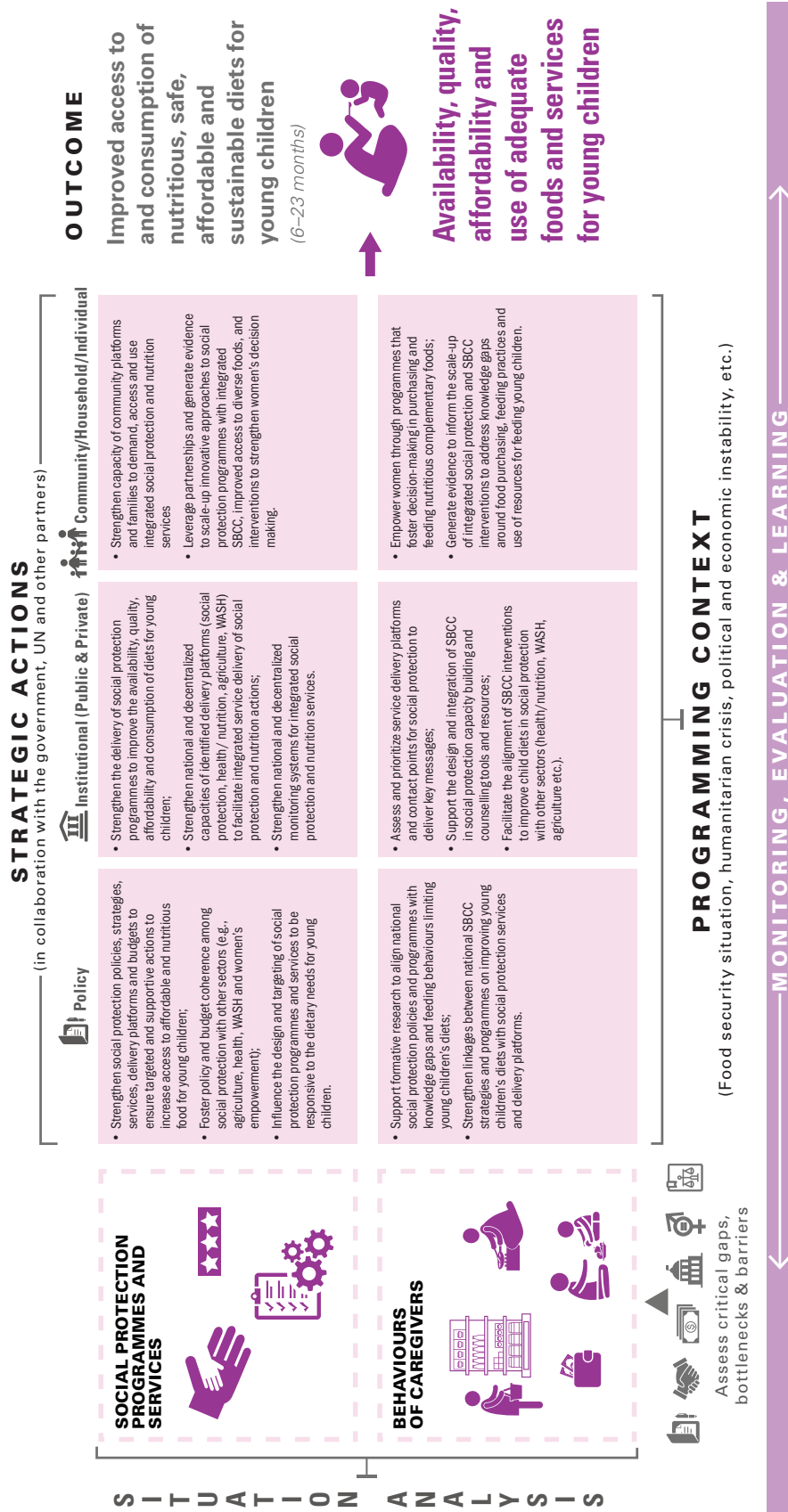


Figure 9: Delivering actions to improve young children's diets through the Social Protection system

6.2.4 Action Framework for Delivering through the Social Protection System

The social protection system refers to a set of policies and programmes aimed at protecting all people against poverty, vulnerability and social exclusion throughout the life course, with emphasis on vulnerable groups.¹⁸³ Nutrition-sensitive social protection services, coupled with nutrition counselling and education, can improve household food security, dietary diversity and caregiver empowerment.^{105, 155}

The social protection system can increase household resources and reduce the price of food and nutrition services through social transfers (e.g., food, cash, vouchers), programmes to ensure economic and social access to services, social support and care services, and legislation and policies that prevent discrimination in access to services and livelihoods. Services to strengthen women's empowerment and decision-making in household spending can also improve access to nutritious complementary foods. The social protection system is therefore critical to improving the availability, quality and affordability of adequate food and services for young children.

This section reviews examples of social protection-related drivers that need to be addressed to improve young children's diets and complements the discussion in section 4.

Social protection programmes and services:

- Poor availability, coverage and effectiveness of social protection programmes;
- Inadequate targeting of programmes that prevents vulnerable households with young children from receiving assistance.

Behaviours of caregivers:

- Lack of time and cultural norms and preferences that negatively influence food purchasing, preparation and allocation;
- Inadequate knowledge on social protection programmes and their relation to feeding practices, and limited decision-making power over money and assets.

Strategic actions to activate the social protection system to improve young children's diets

The Action Framework illustrates strategic actions that UNICEF may undertake in collaboration with government and partners at the policy, institutional, and community/household level to address the drivers of children's diets through the social protection system (*Figure 9*). The actions proposed in the Action Framework are illustrative rather than exhaustive and should be adapted to country context.



At policy level, actions to influence the social protection system may include strengthening the design and targeting of programmes and services; improving policies, strategies and budgets and fostering coherence among sectors; and ensuring that social protection programmes and delivery platforms are supported by adequate national SBCC strategies.



At institutional level, actions to influence the social protection system may include strengthening the capacity of delivery platforms to deliver integrated social protection, health, agriculture and nutrition interventions; prioritizing service delivery platforms and contacts for delivering nutrition counselling and SBCC aligned with other sectors; integrating the use of available communication resources (e.g., the 'first foods' videos); and strengthening monitoring systems.



At community/household/individual level, actions to influence the social protection system may include strengthening the demand for integrated social protection and nutrition services; fostering women's decision-making in food purchasing and the feeding of nutritious and safe complementary foods; and generating evidence to inform the scale-up of integrated programmes targeted at addressing gaps in knowledge around food purchasing, feeding practices and use of resources.

7.

*Monitoring,
evaluation and
learning*





The continuous generation, documentation, sharing and application of knowledge is essential to establishing a robust evidence base for best practices on improving the diets of young children. Monitoring, evaluation and learning (MEL) is thus critical to effective programme implementation and the achievement of programme objectives. MEL is generally driven by questions such as: What is the state of programme implementation (including pace, progress against milestones)? Is the programme on track to achieve targeted results? What corrective actions, if any, are needed?

The scope of MEL activities for complementary feeding programmes should reflect the wide range of determinants and drivers known to impact young children's diets. MEL plans can then shed light on the factors that may be limiting children's ability to consume nutritious, affordable and safe complementary foods, across sectors.

7.1 MEASURING PROGRESS ON IMPROVING YOUNG CHILDREN'S DIETS

In order to facilitate appropriate assessment, targeting, monitoring and evaluation of IYCF programmes, a set of core IYCF indicators* related to the recommended complementary feeding practices were defined and published by WHO in 2008.¹⁸⁴ These indicators were subsequently adopted as the global standard and integrated into national household surveys such as Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and national nutrition and health surveys, to monitor progress on IYCF practices at national, regional and global levels. These indicators are used in programme-specific evaluations to monitor outcomes or impact.^{70, 184}

* These indicators are not the same as the recommendations. For example, the indicator of minimum dietary diversity should not be interpreted to mean that only five food groups out of eight (including breastmilk) are needed for a healthy diet. Infants and young children should ideally receive food from all food groups daily.

Recently, the definitions for indicators specific to meal frequency, dietary diversity and continued breastfeeding during the complementary feeding period were slightly altered.^{32, 33}** Additional indicators were also developed to capture non-dairy animal-source food consumption, fruit and vegetable consumption, sugar-sweetened beverage consumption, and unhealthy food consumption. Table 1 provides definitions for new and revised standard indicators relevant to the complementary feeding period.

The tracking of these standard indicators is the pillar of MEL at the outcome (or impact) level for programmes to improve young children's diets. To monitor effectively, governments need to ensure that credible and comprehensive data on complementary feeding aligned with these standard global indicators are reported every three to five years. UNICEF maintains a global database¹⁶ of country-level estimates for all standard IYCF indicators; however, these indicators are not intended to meet all programme needs for MEL, as they focus on feeding practices and do not capture information related to access and availability of safe and nutritious foods. Programmes should complement these standard indicators with more contextually-specific process indicators to reflect planned activities and targets (*discussed in more detail later in this section*).

7.2 PROGRAMME MONITORING AND EVALUATION

Implementing priority actions involves monitoring progress and measuring changes in the diets of young children at the sub-national and national level using a set of indicators. Indicators should capture impact, outcome and output level activities and targets. To ensure that monitoring and evaluation indicators and activities can effectively compare

** Part of the impetus for these revisions was the recognition that the original indicators did not adequately capture the quality of children's diets.

programme progress against implementation plans, their design should be closely aligned with their programme’s theory of change.¹⁸⁵ A theory of change for a programme designed to improve the diets of young children should acknowledge the key drivers of complementary feeding and illustrate how actions within each of their respective sectors contribute to expected outputs or outcomes.

Programme specific monitoring and evaluation indicators and activities – linked to priority actions across drivers – should be included in the national nutrition plan, or clearly defined within relevant national or sub-national plans. Monitoring and evaluation activities should be multi-year, with activities planned throughout all stages of the programme lifecycle.¹⁸⁵ An illustrative results matrix

with generic indicators at all levels is presented in Annex 6 and can serve as a useful tool which can be contextualized as appropriate.

Both quantitative and qualitative methods may be employed to collect identified monitoring indicators.* Key sources of monitoring data at country-level include health management information systems (HMIS), logistics/supply management information systems, and clinic records. These types of internal data are ideal for programme monitoring given their integration into existing government systems and routine collection; however, it can be challenging to

* Programme monitoring is defined here as the ongoing process of collecting, analysing, interpreting and reporting indicators to determine how well a programme is being executed against planned objectives.²⁰²

Table 1: Revised standard indicators for complementary feeding

Indicator	Definition
Continued breastfeeding	Percentage of children aged 12–23 months who were fed with breastmilk during the previous day
Introduction of solid, semi-solid or soft foods	Percentage of infants aged 6–8 months who were fed solid, semi-solid or soft food during the previous day
Minimum dietary diversity	Percentage of children aged 6–23 months who received foods from at least five out of eight* defined food groups during the previous day
Minimum meal frequency	Percentage of children aged 6–23 months who received solid, semi-solid, or soft foods (including milk feeds for non-breastfed children) the minimum number of times or more during the previous day
Minimum milk feeding frequency for non-breastfed children	Proportion of children aged 6–23 months who received at least two milk feeds during the previous day
Minimum acceptable diet	Percentage of children aged 6–23 months who received a minimum acceptable diet during the previous day
Non-dairy animal source food consumption	Percentage of children aged 6–23 months who consumed egg and/or flesh foods during the previous day
Sugar-sweetened beverage consumption	Children aged 6–23 months who consumed a sugar-sweetened beverage during the previous day
Unhealthy food consumption	Percentage of children aged 6–23 months who consumed selected categories of unhealthy food during the previous day
Zero vegetable or fruit consumption	Percentage of children aged 6–23 months who did not consume any vegetables or fruits during the previous day

* (1) Breastmilk; (2) grains, roots and tubers; (3) legumes and nuts; (4) dairy products (milk, infant formula, yoghurt, cheese); (5) flesh foods (e.g., meat, fish, poultry, organ meats); (6) eggs; (7) vitamin A-rich fruits and vegetables, and; (8) other fruits and vegetables.

successfully advocate for the inclusion of new/updated indicators and the quality of indicators is often poor. Nonetheless, in many cases, government information systems are the only source of data available for monitoring. Strengthening routine monitoring systems (national and decentralized) to adequately track nutrition activities, and more specifically of complementary feeding,* is therefore critical.¹⁸⁶ Where modification or use of government system indicators is not feasible, external monitoring can be employed to collect selected indicators.

Programme evaluation may assess: (1) impact (what happened?); (2) efficiency (what did it cost?); (3) coverage (who was reached?); (4) process (how did it happen); and, (5) causality (why did it happen?). Evaluation design and objectives should be based on the programme theory of change, local context and available resources. Evaluations can be costly and take time, and countries may not have the resources or capacity to undertake a stand-alone evaluation. In such cases, secondary data sources with primary data collection can be used to fill the data gaps. While not ideal, existing national surveys at country level are often used to evaluate programme outcomes. In such scenarios, UNICEF should advocate for the integration of metrics on complementary feeding into national surveys to inform decisions at country level and better track programme implementation at global level. Regardless of methods, the evaluation should provide credible and useful findings to enable uptake of evidence into programme and policy decision-making processes.¹⁸⁷

7.3 KNOWLEDGE MANAGEMENT AND LEARNING

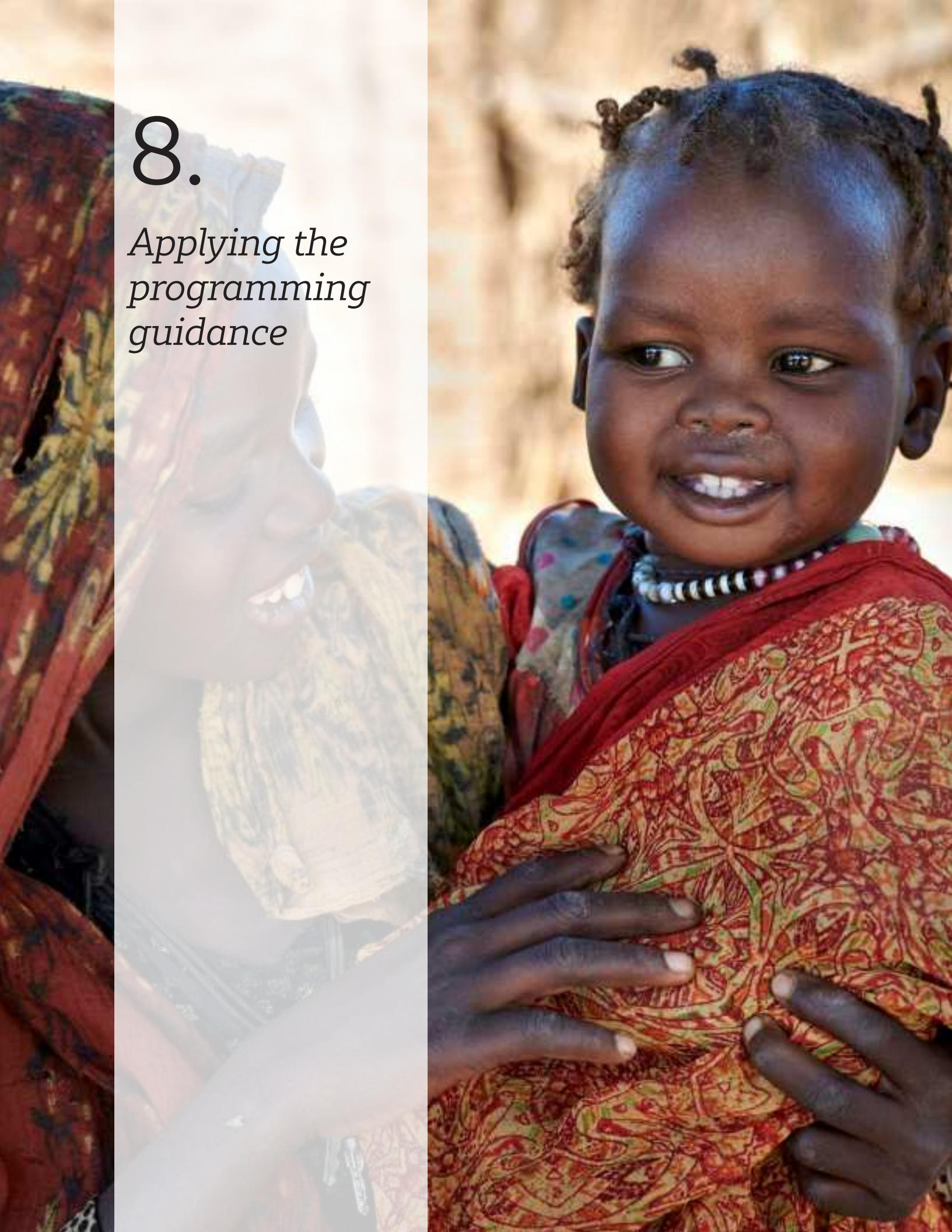
The data generated from monitoring and evaluation activities should inform programme strategy and decision-making, identify gaps where further research is required, and be disseminated to facilitate learning across countries and regions. The generation, use, and reporting of evidence on the drivers of children's diets (*detailed in section 4*) is thus a critical part of MEL and should be strengthened throughout the programme lifecycle.

Learning and knowledge management plans should be included in the design of complementary feeding programmes. Plans should include evidence generation, documentation, knowledge exchange and dissemination, and priorities for research. Documentation to chronicle programme experiences and lessons learned is particularly critical – and too often underprioritized. Knowledge exchange and dissemination activities should be carefully planned to ensure that documentation reaches the right audience, in the right format, at the right time. The estimated level of rigour and resources for each knowledge management and learning activity should be planned accordingly to secure the required support for implementation.

* At the time of publishing this Programming Guidance, efforts are under way in selected countries to pilot the integration of age-appropriate complementary feeding indicators in the HMIS.

8.

*Applying the
programming
guidance*





This UNICEF Programming Guidance aims to improve the quality of complementary foods and feeding practices by facilitating the scale-up of evidence-based programmes using a systems approach. The guidance responds to the call for evidence on implementing multisectoral complementary feeding programmes and articulates how country offices can better design, implement, monitor and evaluate them.

The guidance introduces Action Frameworks as a tool for facilitating action-oriented programming to improve the diets of young children aged 6–23 months. It recognizes that UNICEF country offices are at varied levels of programming and applying these Action Frameworks will involve prioritizing one or multiple delivery systems, depending on the country context. The food system, which has long been neglected, should be prioritized in most cases, in addition to other relevant systems. To illustrate, if the limited availability of diverse and affordable complementary foods is a driver of young children’s diets, countries may prioritize strategic actions for influencing the food system at policy, institutional and community level, while linking actions through social protection programmes (to influence food affordability) and health systems (to establish the needed regulatory environment on food safety and marketing and to strengthen capacity in healthcare work force).

At country level, the Programming Guidance can be applied to strengthen the policy environment for improving young children’s diets by influencing the national policies, strategies and costed action plans across multiple systems. It can also be applied to strengthen the capacities of relevant systems to deliver quality services and address demand-related barriers to accessing them at community and household levels. UNICEF country offices should use a consultative process involving the government and other relevant stakeholders at every stage of programming. The Programming Guidance should also be used to strengthen MEL with the goal of generating evidence, documenting results, and improving accountability at multiple levels and across multiple systems.

When adapted at the regional level, the Programming Guidance can support the development of a regional agenda and roadmap for improving young children’s diets through quality support to countries. The Action Frameworks should be adapted to regional context* through a consultative process of engaging partners, including UN agencies, regional economic commissions, civil society networks, and existing coordination platforms (such as SUN and regional nutrition working groups).

Applying the Programming Guidance at country and regional levels could include:

- Influencing governments and partners to prioritize and invest in improving the diets of young children through strengthening national nutrition action plans and strategies;
- Strengthening coordination and partnerships to address multiple barriers and bottlenecks to improving young children’s diets;
- Forging partnerships with the Ministry of Agriculture, Trade, Industry, and others to strengthen food systems and make nutritious diets available and affordable;
- Building synergies within the health system to optimize opportunities for linking health, nutrition and WASH services to improve the quality of young children’s diets;
- Influencing national social protection programmes to be more nutrition-sensitive and designed and targeted to improve young children’s diets;
- Strengthening coherence and synergy in the policies, budgets and services designed to improve nutrition outcomes for young children.

These actions have the power to catalyse progress at national, regional and global levels to prevent all forms of malnutrition by promoting adequate foods, adequate services and adequate practices and therefore, ensure a brighter future for children and their families.

* At the time of publishing this Programming Guidance, the Action Framework has already been adapted to regional context in four of the seven UNICEF regions.

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ANNEXES

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Annex 1: Evidence-based interventions to improve complementary feeding and their association with child feeding and growth outcomes*

(discussed in section 5 on the Programming Guidance)

Intervention	Timely introduction	Diet diversity	Consumption of animal-source foods (ASF), vegetables and fruits	Feeding frequency	Minimum acceptable diet (MAD)	Food safety and hygiene	Responsive feeding	Stunting and linear growth (LAZ or HAZ)	Other nutrition outcomes
Nutrition education and counselling to caregivers (on timely introduction of food, types and amount of complementary foods, and hygiene) ^{1,2}	✓			✓	✓	✓			
In food secure environments, counselling on appropriate complementary feeding ^{3,4}								✓	Improved weight-for-age Z score (WAZ)
Interpersonal communication, nutrition-sensitive agricultural activities, community mobilization and mass media ⁵		✓		✓	✓			✓	Stunting decreased by at least 5 percentage points
Personalized maternal counselling ⁶		✓		✓					
Baby-friendly community programme, SBCC, including religious leaders ^{7,8}		✓							
Training of health workers in nutrition ⁹		✓		✓					Improved daily energy intake
Intensive interpersonal counselling, community mobilization, and mass media ¹⁰	✓	✓	Higher intake of iron-rich foods		✓				
IYCF counselling during health service contacts and food demonstrations ¹¹			Intake of: chicken liver, fish, eggs higher at 6–8 months						Children met requirements for energy, iron and zinc
2. Promote improved availability and accessibility of diverse and nutritious complementary foods at household level									
Diet modification: i) production of nutrient-dense foods and ASF ii) absorption enhancers of iron, zinc, vitamin A in household diets; iii) lower phytate content of maize and legumes ¹²		✓	Increased consumption of fish						Higher haemoglobin, lower anemia, decreased deficiencies (protein, zinc vitamin B-12)

* Studies listed in the table are those showing significant effect on the variables

Intervention	Timely introduction	Diet diversity	Consumption of animal-source foods (ASF), vegetables and fruits	Feeding frequency	Minimum acceptable diet (MAD)	Food safety and hygiene	Responsive feeding	Stunting and linear growth (LAZ or HAZ)	Other nutrition outcomes
Provision of one egg per day for 6 months to young children ¹³								✓ Stunting decreased by 47 per cent	Increased WAZ
Meat supplement compared with infant cereals ¹⁴									Linear growth greater in meat group
Integrated health and agriculture SBCC for nutrition, systems strengthening, and multi-sectoral coordination ^{15, 16}	✓	✓	Increased consumption of pro-vitamin A-rich foods, other fruits and vegetables		✓			✓	
Inputs and training for poultry farming and home gardening with SBCC ¹⁷		✓						✓	Higher WAZ
Nutrition-sensitive poultry production, SBCC, home gardening ¹⁸			Increasing egg consumption						
SBCC, provision of food production inputs e.g., agricultural extension, seeds, and small livestock ^{11, 19}		✓	Increased consumption of legumes/nuts						Protective effect on wasting in intervention group
Families/farmers given dairy cows, goats, sheep, pigs, chickens, fish; agricultural extension inputs and IYCF lessons in communities ¹¹		✓	Improvement in food production/SBCC group						
Enhanced homestead food production: (1) vegetable gardening, seeds; (2) poultry production training and chicks; (3) technical support; (4) support groups; (5) SBCC ²⁰		✓	Increased consumption of vitamin A-rich fruits and vegetables						Improved anaemia among children aged 12–48 months
3. Promote use of micronutrient powders as part of IYCF programmes to improve the quality of young children's diets									
Provision of MNPs through health and community platforms ²¹⁻²⁴									Improved haemoglobin compared to placebo; and lower anaemia

Intervention	Timely introduction	Diet diversity	Consumption of animal-source foods (ASF), vegetables and fruits	Feeding frequency	Minimum acceptable diet (MAD)	Food safety and hygiene	Responsive feeding	Stunting and linear growth (LAZ or HAZ)	Other nutrition outcomes
Integrated MNP and complementary feeding interventions (with SBCC) ²⁵				✓					Improved consistency of complementary foods
Integrated micronutrients and IYCF interventions ^{23, 26}		✓		✓	✓				
Nutritional package of counselling and provision of MNPs ²⁷		✓			✓			✓	
4. Promote improved accessibility and affordability of nutritious complementary foods through social protection programmes and counselling services									
Conditional cash transfer (CCT), fortified foods (for pregnant and lactating women and children aged 6–23 months), and curative health services ²⁸								✓	Infants gained additional 0.76 kg and increased WHZ
Unconditional cash transfers (UCT) ²⁹								✓	
Food security transfer every other month, contingent on child attendance of well child visits ³⁰								✓	Reduced underweight in children by 6.2 percentage points
CCT and UCT ³¹								Mixed findings: Reduced stunting with CCT, ³⁰ higher HAZ. ³² UCT: Limited association with HAZ	
5. Promote improved access to fortified and nutritious commercial complementary foods, together with regulations on the inappropriate promotion of foods for infants and young children									
Consumption of iron fortified foods ³³									Lower risk of underweight
Complementary food supplementation (e.g., milk, chickpea or a blend of corn-soy, ready-to-use therapeutic food), and SBCC education ⁴								✓ In food-insecure settings	Small effect on WLZ (weight-for-length Z score)

Intervention	Timely introduction	Diet diversity	Consumption of animal-source foods (ASF), vegetables and fruits	Feeding frequency	Minimum acceptable diet (MAD)	Food safety and hygiene	Responsive feeding	Stunting and linear growth (LAZ or HAZ)	Other nutrition outcomes
Lipid-based supplements ³⁴ , small-quantity lipid-based nutrient supplements with or without YCF counselling ^{35, 36}						✓		✓	Improved iron and zinc intake, hemoglobin, and lower anaemia
Micronutrient-fortified milk and cereal for complementary feeding ³⁷									Increased intake of iron-fortified foods; increased haemoglobin and lower anaemia
Micronutrient-fortified porridges ³⁸									Greater WHZ
6. Promote improved access to and use of safe complementary food, water and clean household environment for young children									
Hygiene Education intervention ³⁹						✓ Reduced food contamination			
Intensive handwashing promotion ⁴⁰									Children had fewer days of diarrhoea
Messages promoting implementation of hygiene measures ⁴¹						✓ Reduced food contamination			
Education interventions for caregivers ¹						✓ Improved hygiene practices			
7. Promote counselling and education on responsive parenting, responsive feeding, and stimulation									
Educational programmes on child self-feeding and maternal responsiveness ⁴²							✓		No differences in weight gain
Community-based responsive feeding with education ⁴³							✓		Weight and weight gain higher
Counselling and responsive feeding education ⁴⁴								✓	Increased energy, protein, vitamin A, calcium, iron, and zinc consumption

Annex 2: Tools for complementary feeding programming

Tools	Description and uses	Data requirements
<p>Propan www.paho.org/propan Email: propan@paho.org</p> <p><i>ProPan helps develop strategies and activities designed to change the behaviours of the target population.</i></p>	<p>Propan can be used to:⁴⁵</p> <ol style="list-style-type: none"> Identify breastfeeding and complementary feeding problems in target population; Define the context in which the problems occur; Identify barriers and facilitators of ideal feeding behaviors and practices; Formulate, test, and select behaviour change recommendations and nutrition recipes and develop interventions to address barriers; Design monitoring and evaluation systems to measure progress toward intervention goals; Identify locally available foods that provide the greatest amount of energy and nutrients at the lowest cost. 	<p>Requirements for using the tool may include:⁴⁵</p> <ol style="list-style-type: none"> Caregiver survey on complementary feeding; Context in which feeding occurs; 24-hr dietary recall and anthropometry (dietary intake and complementary feeding practices; child weight, height, mid-upper arm circumference); Market survey, including consideration of: <ol style="list-style-type: none"> Accessibility as a potential reason for limited consumption of foods; Locally available foods providing the greatest amount of energy and nutrients for the least cost (nutrient/cost ratio); Seasonality and availability of specific foods frequently consumed by children aged 6–23 months.
<p>Optifood https://www.spring-nutrition.org/publications/tool-summaries/optifood</p> <p><i>Optifood provides guidance for developing food-based recommendations.</i></p>	<p>Linear programming to identify ‘problem nutrients’ (i.e., those that are inadequate in current diets) and propose optimal diets based on local foods:⁴⁵</p> <p>Optifood can be used to:</p> <ol style="list-style-type: none"> Identify problem nutrients; Identify optimal diets, based on locally available foods, including combinations of nutrient-dense foods and/or other interventions (e.g., food fortification); Test alternative food-based interventions in community trials. 	<p>Requirements for using the tool may include:⁴⁵</p> <ol style="list-style-type: none"> A list of foods consumed by the target population; For each food: minimum number of portions, average-sized daily portion (g/day), maximum weekly portion (g/week), cost per gram, food group category, and energy and nutrient content; Market survey/ secondary sources for food price data.
<p>Cost of the Diet (CotD) https://www.securenutrition.org/resource/cost-diet-tool-v2</p> <p><i>CotD is primarily a tool for understanding the economic barriers to accessing a nutritious and balanced diet</i></p>	<p>Linear programming to calculate a combination of locally available foods that meet energy, macro, and micronutrient needs for children at the lowest possible cost.</p> <p>Cost of diet can be used to:⁴⁵</p> <ol style="list-style-type: none"> Identify which individuals and households can locally access the foods required to meet their specifications for energy, protein, fat, and micronutrients; Calculate the lowest combination of foods that are required to meet the energy, protein, fat, and micronutrient specifications for children; Determine what proportion of the population could afford a diet that meets these specifications; Allow ‘what if’ models to examine the effect of interventions on cost. 	<p>Requirements for using the tool may include:⁴⁵</p> <ol style="list-style-type: none"> Market surveys or secondary food price data detailed with all foods available to the household; Interviews and focus group discussions to determine food habits; Background data on sources of own production; Definition of wealth, income, and expenditure data (to measure affordability).

Tools	Description and uses	Data requirements
<p>Fill the Nutrient Gap (FNG) https://www.wfp.org/content/2017-fill-nutrient-gap</p>	<p>A framework for improved situation analysis to gain a better understanding of the nutrition situation, including linear programming tools, such as CotD, to model interventions for improving access to nutritious diets.</p> <p>The framework can be used to:⁴⁵</p> <ul style="list-style-type: none"> (a) Identify context-specific policy and programmes that are rooted in a sound situation analysis; (b) Gain consensus among key stakeholders within the country about the barriers to adequate nutrient intake and identify possible solutions. 	<p>Secondary data required, related to</p> <ul style="list-style-type: none"> (a) Malnutrition; (b) Availability of nutritious foods on the local market; (c) Access to nutritious foods by households; (d) Nutrient intake of target groups; (e) Local practices on food nutrient intake; (f) Enabling environment: policies, programmes, regulations; (g) Inputs for linear programming: income and market price.

Annex 3: Core components of situation analysis for complementary feeding programming

Core components of situation analysis	Type of analysis	Illustrative questions to guide analysis	Data sources
Data on complementary feeding indicators, including status, trends and predictors	Review further analysis of national data sets <i>(quantitative)</i>	<ul style="list-style-type: none"> • What is the status of complementary feeding indicators* and what are the trends over last decade? • What do the data tell us about the key predictors of young children's diets? • What regions have greater inequities or burden? (Where possible, review disaggregated data on sex, rural/urban, age-group) 	National and sub-national surveys, including DHS, MICS and nutrition surveys
Policy landscape analysis of health, nutrition, social protection and agriculture (others as relevant)	Secondary analysis of available policies using policy matrix <i>(qualitative)</i>	<ul style="list-style-type: none"> • Do the following instruments include actions to improve young children's diets? <ul style="list-style-type: none"> • Policies • Legislation • Plans • Budgets • Do policies on health, nutrition, social protection, agriculture, trade (and others as applicable to country context) include actions to improve the diets of children aged 6–23 months? • Is there coherence in the actions across policies from various sectors? • What are the gaps in the policies and legislations that need to be narrowed? • Is there a need to formulate new policies or strengthen existing ones to ensure synergistic actions across different delivery systems? 	Documents endorsed by government departments
Programme service delivery	Review of programme data <i>(quantitative and qualitative)</i>	<ul style="list-style-type: none"> • What programme services are being delivered to children aged 6–23 months? • What other services are being delivered beyond counselling for children aged 6–23 months? • What delivery platforms are being used to deliver these services? • What are the capacity gaps in human resources? • Are there data available on the coverage of programme services for children aged 6–23 months? If yes, what do the data tell us? • Are there any programme services for young children being delivered by social protection and agriculture departments? 	UNICEF internal reporting and government reports
Knowledge, attitudes and practices (KAP)	Review of existing reports <i>(qualitative)</i>	<ul style="list-style-type: none"> • What are the key behaviors and practices that either enable or hinder complementary feeding outcomes? • What are the social and cultural norms that enable or hinder complementary feeding outcomes? • What are the priority behaviours and practices that are critical to improve complementary feeding outcomes? 	Reports from UNICEF-supported assessments or those of partners; and published evidence including KAP surveys

* Indicators may include timely introduction of foods; MDD, MMF and MAD; consumption of animal source foods/iron-rich foods; consumption of vegetables and fruits; and unhealthy practices

Core components of situation analysis	Type of analysis	Illustrative questions to guide analysis	Data sources
Stakeholder mapping	Review of existing analysis coupled with discussions with partners <i>(qualitative)</i>	<ul style="list-style-type: none"> • Who are the partners working on improving complementary feeding outcomes and what are they doing? • How is the private sector present in the context of the production of commercial complementary foods? • What are the existing platforms to coordinate the work of various stakeholders? • What is the extent of geographical and thematic overlap between stakeholders? • What opportunities for partnership can be identified and leveraged to maximize reach and results? 	Existing stakeholder mapping if available; or, undertake one using a simple matrix
Understanding barriers to access of nutritious, safe, affordable and desirable complementary foods (in markets and at household level)	Market analysis and focus group discussions <i>(qualitative)</i>	<ul style="list-style-type: none"> • Are there any barriers to availability and access to nutritious and safe complementary foods? • What are the barriers to access at market level? • What are the barriers to access at household level? 	Reports from partners and/or UNICEF supported assessments
Understanding food consumption patterns, nutrient gaps and cost of diet for young children	Review available reports and published evidence <i>(quantitative and qualitative)</i>	<ul style="list-style-type: none"> • What are the consumption patterns of different food groups for the 6–23-month age group? • Which are the limiting nutrients, foods/food groups in diets of children aged 6–23 months? • What are the affordable food groups for this age group? • Is it possible to meet the nutrient needs of young children through unfortified local foods? • Is there any evidence on feasibility of use of MNPs and/or other fortified complementary foods? 	Reports from partners and UNICEF supported assessments

Annex 4: Assessing availability, promotion and perception of commercially produced complementary foods, snacks and beverages

It is well established that food product promotion can negatively influence the diets of infants and young children.⁴⁶⁻⁴⁸ The Code and the WHO *Guidance on Ending the Inappropriate Promotion of Foods for Infants and Young Children* regulate the advertising and promotion of breastmilk substitutes (BMS) and commercially produced complementary food (CPCF). However, there is often little evidence in-country on the types of CPCF and commercial snack and beverage products available in retail locations, the extent to which these products are explicitly promoted to caregivers of young children, and how these products are used and perceived by caregivers.

Assessing the availability, promotion and perception of CPCF, snacks, and beverages is a critical component of a situation analysis on the drivers of young children's diets. Key areas that warrant investigation, and methods that have been tested for their exploration, are summarized below:

1. Availability of and promotional practices for CPCF and commercial snack and beverage products in retail locations (point-of-sale)

Assessing the extent to which these products are available and promoted in retail locations can help to estimate the likelihood of children's exposure (directly and indirectly) to marketing of nutrient-poor snack foods and beverages. Further, understanding the extent of marketing in these retail locations is necessary for the development and strengthening of national regulations on inappropriate promotion of foods.⁴⁹ Illustrative research questions are listed below, which could be further explored based on context.

Research questions:

- Types of CPCF and commercial snack and beverage products available in retail locations.
- Target age groups of products promoted.
- Scale and type of promotional activities used to market CPCF and commercial snack and beverage products to caregivers and young children.
- Nutrient profiles of the CPCF and commercial snack and beverage products sold.
- Retailers' interest in actively promoting healthy foods.

Methods:

- Scan of retail locations and market profiling. This includes the sampling of different retail locations (from small, informal shops to large grocery stores) and collecting data in these locations on product availability, type and quality. Further, promotional activities within retail locations can be observed, categorized and recorded during data collection.⁴⁹
- Structured or semi-structured interviews may also be conducted with retailers and consumers on promotional activities.

2. Caregiver perceptions and factors influencing the use and feeding of CPCF and commercial snacks and beverages

Understanding the drivers behind caregiver decisions to purchase and use these products can help identify ways to curb consumption rates.⁵⁰ Illustrative research questions are listed below, which could be further explored based on context.

Research questions:

- Profile of caregivers' use of CPCF and commercial snack and beverage products for feeding children.
- Rationale for providing CPCF and commercial snack and beverage products to children.
- Caregiver opinions on quality and utility of different types of CPCF and commercial snack and beverage products.
- Factors that influence purchasing CPCF and commercial snack and beverage products.
- Factors that influence feeding CPCF and commercial snack and beverage products to children.

Methods:

- A mixed-methods approach can be employed, utilizing both qualitative and quantitative methods.
- Focus group discussions and participatory exercises with caregivers (non-working mothers, working mothers, and grandmothers or other family caregivers).
- In-depth interviews with key informants.
- Cross-sectional survey of caregivers with infants and young children.⁵⁰

Further information and examples of relevant research topics and methods to assess the availability, promotion and perception of CPCF, snacks and beverages can be found in various Assessment and Research on Child Feeding (ARCH) publications (see: <https://archnutrition.org/resources/>).

Annex 5: Resources, tools and useful links related to improving young children's diets

Capacity building

First Foods for Young Children: A video series on complementary feeding (2018) https://www.unicef.org/nutrition/102823_The%20video%20series.html

Programming for infant and young child feeding: UNICEF-Cornell online course (Transitioned from Cornell to Agora in 2019) <https://agora.unicef.org/course/info.php?id=16009>

Infant and young child feeding e-learning hub: Alive & Thrive e-learning course on IYCF (2019) <https://www.iycfhub.org/>

Guidance Documents

Global strategy for infant and young child feeding. WHO/UNICEF (2003). <http://www.who.int/nutrition/publications/infantfeeding/9241562218/en/index.html>

Guiding principles for feeding non-breastfed children 6–24 months of age. WHO (2005). http://www.who.int/nutrition/publications/infantfeeding/guidingprin_nonbreastfed_child.pdf

Guiding principles for complementary feeding of the breastfed child. PAHO (2003). https://www.who.int/nutrition/publications/guiding_principles_compfeeding_breastfed.pdf

Complementary feeding: Family foods for breastfed children. WHO (1998). http://www.who.int/nutrition/publications/infantfeeding/WHO_NHD_00.1/en/index.html

Infant and young child feeding in emergencies (Version 3.0) Operational guidance for emergency relief staff and programme managers. IFE Core Group (2017). https://www.enonline.net/attachments/2671/Ops-G_2017_WEB.pdf

Planning Guide for National Implementation of the Global Strategy for Infant and Young Child Feeding. WHO (2007). http://www.who.int/child_adolescent_health/documents/9789241595193/en/index.html

Updates on HIV and infant feeding: Guideline. WHO (2016). <https://apps.who.int/iris/bitstream/handle/10665/246260/9789241549707-eng.pdf?sequence=1>

Infant feeding in areas of Zika virus transmission: Guideline. WHO (2016) https://apps.who.int/iris/bitstream/handle/10665/208875/9789241549660_eng.pdf?sequence=1

Guidance on ending the inappropriate promotion of foods for infants and young children: Implementation manual. WHO (2017). <https://apps.who.int/iris/bitstream/handle/10665/260137/9789241513470-eng.pdf?sequence=1>

Essential Nutrition Actions: mainstreaming nutrition through the life-course. WHO (2019) <https://www.who.int/nutrition/publications/essential-nutrition-actions-2019/en/>

Tools for formative research and situation assessment

Linear programming module of NutriSurvey. WHO/London School of Hygiene & Tropical Medicine. <http://www.nutrisurvey.de/lp/lp.htm>

ProPAN manual: Progress for the promotion of child feeding. PAHO (2003). <http://www.paho.org/common/Display.asp?Lang=E&ReclD=6048>

Maternal newborn and child health and nutrition programmes (MNCHN) C4D guide. UNICEF (2016). https://www.unicef.org/cbsc/index_43099.html

Monitoring and evaluation

Standardized Monitoring and Assessment of Relief and Transitions (SMART) Methodology and Surveys. SMART (2006). <https://smartmethodology.org/survey-planning-tools/smart-methodology/>

Indicators for assessing infant and young child feeding practices: Part 1: Definitions. WHO, UNICEF, USAID, AED, UCDAVIS, IFPRI (2008).* <http://www.who.int/nutrition/publications/infantfeeding/9789241596664/en/index.html>

Indicators for Assessing Infant and Young Child Feeding Practices. Part 2: Measurement. WHO, UNICEF, USAID, AED, UCDAVIS, IFPRI (2010).³ http://whqlibdoc.who.int/publications/2010/9789241599290_eng.pdf

Indicators for assessing infant and young child feeding practices. Part 3: Country profiles. UNICEF, USAID, AED, UCDAVIS, IFPRI (2010).³ https://apps.who.int/iris/bitstream/handle/10665/44368/9789241599757_eng.pdf?ua=1

* These documents are being updated by WHO.

Annex 6: Illustrative results matrix to guide monitoring and evaluation to improve children’s diets

A results matrix articulating identified indicators at impact, outcome and output level serves as a useful tool to facilitate monitoring, evaluation and learning as part of complementary feeding programmes. An illustrative results matrix with generic indicators at all levels is presented below. The matrix lists output indicators by each of the drivers and is linked to selected strategic actions in the complementary feeding action frameworks. Countries should tailor this results matrix to their specific needs, programme objectives and actions, and local context.*

A results matrix should also include targets for indicators, timelines for progress, frequency of data collection/ reporting, data collection instruments, and the responsible organization for data collection. Indicators for the food, health, water and sanitation, and social protection system that are relevant to complementary feeding may already be collected and reported by other sectors. These sectors should therefore be consulted during the process of developing monitoring and evaluation activities and a results matrix to ensure complementarity and avoid duplication.

IMPACT	INDICATORS
<p>Every child survives and thrives <i>(Shared results based on SDG and WHA impact level indicators)</i></p> <p>Potential data source(s): DHS, MICS, national or programmatic surveys</p> <p>Frequency of collection: every 3 to 5 years</p>	<p>Percentage of children who are:</p> <p>(a) Stunted (Goal 2.2.1) (b) Wasted (Goal 2.2.2) (c) Overweight (Goal 2.2.2)</p> <p>Percentage of children with:</p> <p>(a) Anaemia (as determined by biochemical analysis)</p>
OUTCOME	INDICATORS
<p>Good diets for young children (6–23 months) <i>(Shared results at outcome level based on standard indicators for complementary feeding)</i></p> <p>Data sources: DHS, MICS, national health and nutrition surveys utilization standard IYCF indicator modules</p> <p>Frequency of collection: every 3 to 5 years</p>	<p>a. Percentage of infants 6 to 8 months of age who were fed with solid, semi-solid or soft food during the previous day (ISSSF)</p> <p>b. Percentage of children 6 to 23 months of age who received foods from at least five out of eight defined food groups during the previous day (MDD)</p> <p>c. Percentage of children 6 to 23 months of age who received solid, semi-solid, or soft foods (including milk feeds for non-breastfed children) the minimum number of times or more during the previous day (MMF)</p> <p>d. Percentage of children 6 to 23 months of age who received a minimum acceptable diet during the previous day (MAD)</p> <p>e. Percentage of children 12 to 23 months of age who were fed with breastmilk during the previous day (CBF)</p> <p>Additional indicators for consideration depending on programme design:**</p> <p>f. Proportion of children 6 to 23 months of age who received at least two milk feeds during the previous day (MMFF)</p> <p>g. Percentage of children 6 to 23 months of age who consumed egg and/or flesh food during the previous day (NDAF)</p> <p>h. Percentage of children 6 to 23 months of age who consumed a sugar-sweetened beverage during the previous day (SSB)</p> <p>i. Percentage of children 6 to 23 months of age who consumed selected categories of unhealthy food during the previous day (UFC)</p> <p>j. Percentage of children 6 to 23 months of age who did not consume any vegetables or fruits during the previous day (ZVF)</p>

* UNICEF country nutrition programmes collect and report some of these indicators presented in the proposed results matrix using internal data reporting platforms such as the results assessment module (RAM), NutriDash, strategic monitoring questions (SMQs), and the global UNICEF database on infant and young child feeding indicators. UNICEF guidance on RAM standard indicators provides further details on measuring and reporting on nutrition indicators.

** Some of these additional indicators have been recently defined and are therefore not yet available for surveys. Other indicators can be used in lieu until these become available.

OUTPUTS

- **Strengthened enabling environment to support good diets for young children**
- **Availability and use of quality services for young children delivered through food, health, water and sanitation, and social protection systems**
- **Consistent uptake of supply and services for young children by households**

(UNICEF and partner direct contributions)

Source (administrative reports, routine data systems, HMIS, external monitoring activities, surveys)

Frequency of collection: annual/bi-annual, or via routine monitoring

INDICATORS

Food system-related

- Regulation on the inappropriate promotion of foods for infants and young children adopted/enforced.
- Food standards for young children (<2 years) that make healthy food available and restrict the availability of unhealthy food adopted/enforced.
- Number of households reached by programmes to increase access to fortified complementary foods for children aged 6–23 months.
- Number of agricultural support workers trained in nutrition and IYCF education and counselling.

Health system-related

- International Code of Marketing of Breast-milk Substitutes and subsequent relevant WHA resolutions adopted/enforced.
- National behaviour change communication strategy to improve the diversity and quality of diets of children aged 6–23 months developed and implemented.
- Policy or programme actions for the prevention of overweight and obesity in children integrated into national nutrition strategy and implemented.
- National/sub-national costed action plans to improve the diversity of young children's diets in place/implemented.
- National food safety standards developed/implemented.
- Agenda for improving young children's diets integrated as part of national/sub-national multi-sectoral coordination mechanism/structures for nutrition.
- Complementary feeding counselling and support included in pre-service curricula for medical doctors and nurses.
- Number of complementary feeding indicators included in the national information management system.
- Number/percentage of health and nutrition workers trained to provide counselling on adequate and safe complementary feeding, as per national standards.
- Number/percentage of health and nutrition workers trained to provide counselling that promotes responsive parenting, responsive feeding, and stimulation during early childhood.

Health system-related (con't)

- Number/percentage of service delivery points (health facility and/or community) that provide complementary feeding counselling (in both development and humanitarian situation).
- Number/percentage of health facilities experiencing no stock-outs of micronutrient supplements (i.e., MNP, iron syrups, etc.).
- Number of caregivers of children aged 6–23 months receiving counselling on complementary feeding (in both development and humanitarian situations).
- Number of children aged 6–23 months who receive MNP.
- Number of children aged 6–23 months who received fortified complementary foods.

Water and Sanitation system-related

- National water, sanitation and hygiene sector policy and strategy updated to include actions to promote safe complementary feeding at facilities, communities and at household level.
- National/sub-national plans for health and nutrition updated to include actions to improve coverage of safe water services and counselling on safe complementary feeding.
- Number of nutrition-sensitive WASH indicators included in the national information management system.

Social Protection system-related

- National social protection strategy and/or policy updated to include actions to improve young children's diets.
- Design of national or sub-national social protection programme updated to include services for children under 2 year of age.
- Number of households with children under 2 years reached with cash transfers and other social protection services including nutrition counselling.
- Number of households with children under 2 years reached with food vouchers and other social protection services including nutrition counselling.
- Number of nutrition-sensitive social protection indicators included in the national information management system.

Internal monitoring of strategic actions and measuring progress

Process level indicators should also be developed for internal monitoring of activities required to achieve planned outputs, outcomes and impact. Progress on strategic actions should be monitored internally to track execution against planned objectives and timelines. Such internal monitoring enables programme managers to assess and identify implementation issues and take corrective action in a timely manner. Process indicators should be defined based on the country-specific actions implemented across systems. **Some examples of process indicators related to the four systems are listed below:**

Food system

- Assessments of markets and marketing practices to understand barriers to availability and sustained access to safe, affordable and nutritious complementary foods are conducted.
- Mapping of policies, legislation and stakeholders influencing food availability, food cost and the food environment is conducted.
- Partnerships/working groups with Ministry of Agriculture and relevant partners to enable strengthened policy, SBCC and programme linkages with nutrition are established and functional.
- Formative research to inform the design and/or scale-up of community-based approaches to address challenges and gaps in food availability, affordability or the food environment is conducted.

Health system

- Health and nutrition-related policies, legislation, strategies, plans and budgets at national level are reviewed and gaps and actions to improve child diets are identified.
- Complementary feeding indicators for inclusion in national information monitoring systems are developed.
- Formative research to inform the design/scale-up of community-based and health system approaches to improve access to nutritious, safe and affordable foods for children is conducted.
- Trainings for facility and community health and nutrition workers to deliver complementary feeding counselling services are conducted.

Water and sanitation system

- Review and assessment of WASH, nutrition and health policies, strategies and plans is conducted.
- Review and assessment of national SBCC strategies and plans on inclusion of actions to improve young children's diets is conducted.
- Mapping of WASH service availability and access against stunting prevalence and WASH-related disease prevalence is conducted.
- Nutrition-sensitive WASH indicators for inclusion in national information monitoring systems are developed.

Social protection system

- Mapping and review of social protection policies, services, budgets and delivery platforms that influence access to nutritious foods is conducted.
- Partnerships/working groups with relevant social protection government entities and partners to enable strengthened policy, SBCC and programme linkages with nutrition are established.
- Formative research on critical bottlenecks in household level access, availability and affordability of nutritious foods in vulnerable communities is conducted.
- Nutrition-sensitive social protection indicators for inclusion in national information monitoring systems are developed.

Annex Endnotes

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