In Indonesia, stunting increases dramatically during the complementary feeding period from 22 percent at 6 months of age to 38 percent at 2 years of age. Adequate and appropriate complementary foods and feeding practices can help to prevent stunting and introduce healthy eating habits.

Complementary feeding refers to the introduction of solid or semi-solid foods to complement breastfeeding and takes place between 6 months and 2 years of age. Nutrient requirements increase significantly during this period and WHO global guidance recommends:

- Timely introduction of foods (at 6 months of age)
- Diverse diets (at least 4 food groups a day + breastmilk)
- Frequent feeding (at least 3 times a day)
- Continued breastfeeding (up to 2 years or beyond)
- Safe food prepared in a hygienic environment

UNICEF East Asia and Pacific Regional Office has developed a framework for complementary feeding. The framework illustrates how a caregiver’s behaviour, socio-cultural beliefs and knowledge are the central predictors that determine the quality of complementary foods and feeding practices. These are influenced in turn by predictors in four systems (food, health, social protection and WASH). Actions can be taken to modify behaviour and the impact of predictors in the four systems.
Stunting increases dramatically at 6 months of age in Indonesia when breast-milk alone cannot provide all energy, protein, vitamin and mineral needs. As a result, 31 percent of children under five years of age are stunted and 39 percent have anaemia. Appropriate complementary feeding, along with adequate care and disease prevention, can help children grow and develop to their full potential, and prevent stunting, and vitamin and mineral deficiencies.

The introduction of complementary foods is also an important opportunity to establish healthy eating habits that will last a lifetime and ensure that children do not become overweight and develop non-communicable diseases such as diabetes and hypertension later in life. The Government of Indonesia has pledged to end all forms of malnutrition by 2030 (Sustainable Development Goal 2) and has a National Action Plan for Food and Nutrition (RAN-PG) 2015-2019 in place. A national stunting reduction movement was launched in 2017 while a new National Action Plan for Food and Nutrition 2020-2024 is currently being developed. Supporting appropriate complementary feeding is an essential part of these efforts.

Complementary feeding is as important as breastfeeding

While infant and young child feeding (IYCF) is an important component of the RAN-PG, efforts have largely focused on support for breastfeeding with less attention on improving complementary feeding practices. Actions to improve both breastfeeding and complementary feeding are essential to address stunting and to ensure that all Indonesian children can grow and develop optimally.

Complementary feeding practices in Indonesia are still inadequate and inappropriate

More than 40 percent of babies are introduced to complementary foods too early (before 6 months) in Indonesia, while 40 percent of children aged 6 months to 2 years do not have a diet that is sufficiently diverse and 28 percent are not fed frequently enough. These children have poor quality diets that are lacking in essential nutrients. Around 14 percent do not consume vitamin A and 29 percent do not consume iron-rich foods on a daily basis. Responsive feeding, which refers to active encouragement to the child to eat, is also not consistently practiced in Indonesia. The poorest children have the least adequate complementary feeding practices.
Lack of knowledge, mistaken beliefs and food taboos

Belief systems play an important role in decisions about feeding young children. Breastfeeding is frequently discontinued early in Indonesia because breastmilk is perceived as being insufficient or that a crying or thin baby needs additional foods. In some communities, meat is not commonly given to young children though eggs are acceptable. In addition, there is limited knowledge among mothers about the healthy growth of children, healthy complementary feeding diverse diets, the benefit of colostrum and duration of exclusive breastfeeding, need for responsive feeding and how to feed sick children. However, there are also limited platforms where women can access accurate information.

Practical barriers

Over half of the women in Indonesia work outside the home. Responsibility for complementary feeding falls disproportionately on the shoulders of women, who, because they are working, lack the time to prepare suitable complementary foods. Studies have found, that as a result, children often eat unsupervised, at inappropriate times or late in the day due to their mother’s workload. Time and patience is particularly important when feeding sick children, and one study found that 33 percent of mothers stopped trying to feed a child when the child refused to eat.

Limited capacity to provide complementary feeding counselling

Although there are counselling guidelines on complementary feeding for health-staff and guidelines on mother support groups, health workers are frequently short of time and lack supportive supervision. As a result, the quality of counselling to mothers of young children by health staff is unclear, inconsistent and dependent on individual skills.

Insufficient data on complementary feeding

There are limited data on the status and determinants of vitamin and mineral deficiencies, use of micronutrient supplements and monitoring of interventions and services in support of complementary feeding through the health service. Thus, there is no robust evidence base for policy and programming.

Limited micronutrient supplementation

Some families lack the resources to be able to provide a sufficiently diverse diet for their children from local resources. These children can benefit from supplements. Currently, there is no national programme for home fortification of foods through multiple micronutrient powders (MNP).

Poverty and lack of access to social protection services

Poverty has declined in Indonesia with around 9 percent of the population now living below the poverty line. Despite this, substantial inequalities remain. A range of social protection programmes are in place to support the less wealthy. These include the Family Hope Programme (Program Keluarga Harapan or PKH) which provides conditional cash transfers to the poorest 20 percent of households with vulnerable family members including pre-school children provided that they fulfil certain conditions. The Rastra (Subsidized Rice Delivery Programme) which aims to reduce the burden of household expenditure by providing 15 kgs of rice at subsidized prices to the poorest 25 percent of households. The provision of eggs has been added under the BPNT (Bantuan Pangan Non Tunai) which is an extension of the Rastra. However, coverage of these programmes is limited and some families with young children are not included.
Limited resilience to disasters
Poor families are economically vulnerable and also lack resilience in times of disaster. Indonesia is vulnerable to earthquakes and tsunamis – most notably in 2018 when thousands of people lost their homes and livelihoods. Young children are particularly vulnerable during emergencies when health and social services breakdown.

Unsafe complementary foods and unhygienic behaviour
Around 9 percent of households continue to practice open defecation\textsuperscript{10} while unhygienic behaviours such as the failure to wash hands before cooking or feeding a child are practised. Storing cooked food at room temperature and dipping fingers into the food to check the temperature before feeding a child are examples of behaviours that cause complementary foods to be unsafe.

Environmental hygiene
While there have been significant improvements in access to water and sanitation in Indonesia, there are still problems related to environmental hygiene. Young children who are crawling or walking in unhygienic surroundings are therefore at increased risk of developing diarrhoea and becoming worm infested which in turn has an impact on the bioavailability of complementary foods, and on contaminating the foods that they consume.

Limited access to a diverse diet
Food security has greatly improved in Indonesia since 2010\textsuperscript{9} and less than 10 percent of households are now considered to be food insecure.\textsuperscript{10} Nevertheless, one survey found that 38 percent of the Indonesian population could not afford a diverse, nutritious diet\textsuperscript{11} while in some areas of Indonesia, local foods alone cannot provide all the nutrient requirements of a young child.\textsuperscript{4} The food group mostly consumed by children aged 6 – 36 months is cereals (>95 percent) with few sources of protein, fruit and vegetables. When families cannot afford to feed their children with diverse and nutritious food, supplements are important to ensure that children grow and develop to their full potential.

Limited monitoring of ‘growing up’ milks and commercial complementary products
Around 85 percent of non-breastfed babies and 22 percent of breastfed babies between 6 and 12 months of age in Indonesia are consuming formula or ‘growing up’ milks.\textsuperscript{4} Children of this age can get enough nutrients from family food (except in some areas of the country) and there is a lack of awareness that commercial milks are completely unnecessary and an additional cost. The sale of ‘growing up’ milks, many of which are sweetened and flavoured, is rising rapidly and now account for 95 percent of sales of all baby foods in Indonesia.\textsuperscript{13} Regulations on the marketing of breast-milk substitutes and commercial complementary foods for children 6 months to 2 years are in place.\textsuperscript{13} However, there is limited monitoring of whether commercial complementary foods meet government standards on content, labelling, instructions on quantity to consume at each serving and frequency of feeding. As a result, studies have found that commercial complementary foods can be over-relied upon or diluted so that they fail to provide sufficient nutrients.\textsuperscript{14}

Inappropriate promotion and marketing of unhealthy products to young children
Inappropriate foods are frequently given to young children including biscuits, sweets and sugary drinks as snacks to keep them from crying. These products have limited nutrient value, dampen the appetite and are associated with obesity and dental caries. The marketing of food and drinks high in salt, sugar and fat, and targeted for the consumption by young children is widespread in Indonesia.
Actions to improve complementary feeding need to build upon and be integrated within existing initiatives and strategies. Relevant initiatives in Indonesia include:


- **The National Strategy Acceleration of Stunting Prevention 2018 – 2024.** The strategy aimed to facilitate convergence of all programmes related to stunting prevention. It includes specific and sensitive nutrition intervention.

- **Scaling Up Nutrition (SUN) Indonesia.** On 2011, Republic of Indonesia joined SUN Movement and began 'First 1,000 Days of Life Movement' included objectives cemented in an official policy framework that mirrored the World Health Assembly 2025 targets on nutrition.

- **Community Movement for a Healthy Life (Germas).** Launched by the Government of Indonesia at 2017. It is a multisectoral approach that involves 18-line ministries and institutions with three main domains: healthy life paradigm, strengthening health service and national health insurance.

- **Behavior Change Communication Strategy for Acceleration of Stunting Prevention in Indonesia 2018.** The strategy aimed to provide guidance to district level in developing and implementing a behavior change communication strategy for stunting prevention with respect to local contexts.

- **Conditional Cash Transfer Programme.** The programme has been implemented since 2007. Through this programme, poor family with pregnant women, children, disability and elderly are encouraged to have access and utilize basic social services on health, education, food and nutrition, care, and assistance, including access to other social protection programs.

- **Non-cash Food Assistance Programme.** The programme has been implemented since 2018 which aims to reduce the burden of expenditure and provide more nutritious food by providing rice and eggs for poor family.

- **Accelerating the Diversification of Food Consumption Programme.** It has been implemented since 2010 which aims to optimize the utilization of homeyard for providing family's food and nutrition, closer food access as well as income generating purposes.

- **The National Rural Water Supply and Sanitation Project (Pamsimas).** It has been implemented since 2008 which aims to improve clean water and sanitation facilities using community-based approach.

- **Holistic Integrative Early Child Development.** It has been implemented since 2013. A multisectoral initiative which include components of education, nutrition & health and parenting in early child development service.

- **Holistic Integrative Bina Keluarga Balita (BKB HI) 2018.** The service activities cover the aspects of care, health and nutrition and implemented by National Population and Family Planning Board.
Specific actions

Overarching actions

Implement an innovative Social Behaviour Change Communication (SBCC) campaign including through social media

An SBCC campaign, through multimedia, high level advocacy and inter-personal counselling, will deliver clear recommendations on the importance of providing locally available, affordable diverse foods to children aged 6 to 24 months. The campaign can target the whole population including wealthier groups who can afford a diverse diet. Messages will be tailored to take account of regional differences in foods accessible and dietary habits. The campaign will also aim to raise the awareness of key stakeholders within government and among partner organisations.

Include complementary feeding as a priority in national policy and plans

The new National Strategy for Food Security and Nutrition 2020-2024 provides an opportunity to include specific objectives, actions, funding and monitoring systems for complementary feeding.

Engage and coordinate multiple sectors and stakeholders

The multi-sectoral drivers of complementary feeding are addressed through multi-sectoral action. Engagement and coordination of multiple sectors and stakeholders including government, professional, UN, civil society, religious organisations, and private sector is essential. It is also essential to engage and work through the ‘posyandu’ with its extensive network of cadres and potentially the early child education centres (PAUD), to reach mothers of young children, including the most disadvantaged population.

Implement quality research on drivers and determinants, and SBCC strategy

There are many gaps in understanding of the drivers and determinants of complementary feeding. In addition, the channels for delivery and types of messaging for a successful SBCC campaign are not known. The engagement of academic institutions to conduct robust and high quality research can fill information gaps.

Improve collection and analysis of data, and monitoring of progress

Inclusion and robust monitoring of complementary feeding indicators in routine and survey data is required to monitor progress and support future policy and planning for improvement of complementary feeding.

Social protection actions

Ensure that social protection programmes are nutrition-sensitive

Social protection programmes that already target poor families with young children, pregnant and breastfeeding mothers will effectively support improvements to complementary feeding if they provide specific messages and integrate nutrition-specific interventions and support related to complementary feeding. Empowering women through community empowerment programmes is also an important measure that will indirectly contribute to improved complementary feeding.

WASH system actions

Provision of safe water and sanitation facilities

Continue to improve provision of clean drinking water and sanitation, including discouraging open defecation, to all households with young children.

Integrate environmental hygiene into WASH services

It is critical to maintain good environmental hygiene to prevent the contamination of foods and cooking areas used to prepare complementary foods.
Increase availability, accessibility and affordability of healthy fortified complementary foods

Time restrictions require innovative solutions to improve access to affordable, fortified complementary foods. This includes consideration of actions such as increasing the knowledge of caregivers in preparation of locally available complementary foods, the fortification of Rasta rice, improving the quality of non-cash food vouchers and development of good quality complementary food from locally available foods at affordable prices, by small and medium enterprises (SMEs).

Restrict marketing of unhealthy foods to children and improve nutrition labelling

Strong legislation to control the advertising, promotion and labelling of foods high in salt, sugar and fat is critical to ensure that young children develop healthy eating habits. In addition, stricter regulation of the food industry with regard to labelling, promotion and marketing of commercial complementary food products is needed.

Legislate, monitor and control the promotion and marketing of ‘growing up’ milks and commercial baby foods

Promotion of continued breastfeeding as well as sending clear messages about the potential disadvantages of ‘growing up’ milks after 6 months of age are essential. Indonesia has some legal measures in place related to the International Code of Marketing of Breast-Milk Substitutes. These require to be strengthened and enforcement mechanisms put in place.

Strengthen food based guidelines for under two children

Existing food based dietary guidelines need to be expanded with specific focus on the under twos, together with the development of complementary feeding recommendations (CFRs) and nutrient-dense recipes that are locally appropriate and affordable. Local specific CFR has been proven effective in improving intakes of key problem nutrients (calcium, iron, zinc) in Indonesian setting.20

Strengthen health staff capacity to provide quality counselling including through on-line training

On-line mandatory in-service training is the most feasible way of delivering quality training to the huge numbers of health workers and nutritionists working across Indonesia, often in hard-to-reach areas. In addition, it is essential that in-service training materials are accredited and training implemented as quickly as possible.

Prioritise complementary feeding

Government at national and sub-national level need to prioritise complementary feeding planning, implementing, budgeting and monitoring using current IYCF guidelines.

Strengthen mother-to-mother support groups

Mother-to-mother support groups supported by community facilitators need to be strengthened to improve the quality of provision. The groups should meet regularly and receive funding through the Puskesmas (health centres). These groups provide a platform for channelling clear messages on complementary feeding and innovative methods of delivering methods such as through short videos deserves consideration.