Action Plan to Reduce the Double Burden of Malnutrition in the Western Pacific Region (2015–2020)
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ABBREVIATIONS

BF    breastfeeding
BFHI  Baby Friendly Hospital Initiative
BMI   body mass index
CIP   Comprehensive Implementation Plan for Maternal, Infant and Young Child Feeding
CF    complementary feeding
CRC   Convention on the Rights of the Child
EBF   exclusive breastfeeding
FAO   Food and Agriculture Organization of the United Nations
ILO   International Labour Organization
MDG   Millennium Development Goal
NCD   noncommunicable disease
SD    standard deviation
SPC   Secretariat of the Pacific Community
SUN   scaling up nutrition
TB    tuberculosis
UHC   universal health coverage
UNDAF United Nations Development Assistance Framework
UNICEF United Nations Children’s Fund
WHO   World Health Organization
WRA   women of reproductive age
In the Western Pacific, our Member States are beset by the double burden of malnutrition. The problem starts early. Undernutrition contributes to 187,000 preventable deaths of children under 5 years of age. Another 11.6 million children are stunted and 4.7 million underweight. At the same time, more than 6.7 million children under 5 are overweight. Nearly 60% of adolescents are overweight in some parts of the Region, such as Pacific island countries.

With an unhealthy start to life, people’s health prospects as adults turn bleak. They face increased risks of both communicable and noncommunicable diseases, because malnutrition in all its forms leads to an increased risk of sickness and premature death.

The Regional Committee for the Western Pacific urged Member States in 2012 to implement Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition, considering country contexts. This Action Plan to Reduce the Double Burden of Malnutrition in the Western Pacific Region (2015–2020) calls for accelerated efforts to improve nutrition.

The action plan proposes coordinated strategies to reduce malnutrition risk factors and promote healthy diets within the context of the Region’s changing nutritional landscape amid rapid globalization, urbanization and trade liberalization. In addition, the action plan embraces core international health principles of human rights, health in all policies, evidence-informed practices and multisectoral engagement.

With the support of the World Health Organization, Member States should use this action plan as a guide to help ensure that food is available, accessible, affordable and acceptable to all the people of our Region, so that they may lead healthy and productive lives.

Shin Young-soo, MD, Ph.D.
Regional Director
EXECUTIVE SUMMARY

Member States in the Western Pacific Region face a double burden of malnutrition: undernutrition – including wasting, stunting, micronutrient deficiencies and low birth weight – coexisting with overweight and obesity, as well as an increase in nutrition-related noncommunicable diseases (NCDs).

The Action Plan to Reduce the Double Burden of Malnutrition in the Western Pacific Region (2015–2020) brings together nutrition-related actions from global and regional guidance documents to address diet-related diseases and reduce nutritional risk factors. The plan aims to achieve eight nutrition targets: the six global nutrition targets and two of the nine voluntary NCD targets – to reduce salt intake and halt the increase in obesity and diabetes – endorsed by the World Health Assembly in 2012.

This plan describes the magnitude of the double burden of malnutrition in the Region in changing nutritional landscapes. The plan highlights the achievements in reducing undernutrition and the need to halt the rise in overweight, obesity and diet-related NCDs.

The necessary conditions to improve nutrition include:

• sustainable and health-promoting food systems;
• the provision of quality health services; and
• optimal care-giving practices in homes and communities.

To reduce the double burden of malnutrition multiple sectors, including agriculture, trade and industry, environment, communication, education and labour must work together and towards policy coherence across sectors.

The plan advocates a health in all policies (HIAP) approach and delivery of evidence-informed interventions. The emphasis is on the life-course, giving particular importance to the first 1000 days of life. The implementation is guided by a human rights-based, participatory and ecological approach.
The action plan recommends **20 actions for both countries and WHO** to achieve the following five objectives:

1. Elevate nutrition in the national development agenda.
2. Protect, promote and support optimal breastfeeding and complementary feeding practices.
3. Strengthen and enforce legal frameworks that protect, promote and support healthy diets.
4. Improve accessibility, quality and implementation of nutrition services across public health programmes and settings.
5. Use financing mechanisms to reinforce healthy diets.

The United Nations agencies and international organizations have been fighting malnutrition for decades. The focus on NCDs has sharpened in recent years. Sustained collaboration is critical to address stubborn problems of undernutrition and increasing problems of overweight, obesity and NCDs.

National leadership is necessary to reduce the double burden of malnutrition and harmonize partner cooperation. Member States are encouraged to prioritize recommended actions, as appropriate to their country conditions.
1. The double burden of malnutrition in the Western Pacific Region

Member States in the Western Pacific Region face a double burden of malnutrition: undernutrition – including wasting, stunting, micronutrient deficiencies and low birth weight – coexisting with overweight and obesity, as well as an increase in nutrition-related noncommunicable diseases (NCDs).

At the Sixty-fifth World Health Assembly in May 2012, Member States endorsed the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition, or CIP, which includes six global nutrition targets intended to “address the double burden of malnutrition in children starting from the earliest stages of development”. The Global Action Plan for the Prevention and Control Noncommunicable Diseases 2013–2020 was endorsed at the World Health Assembly in 2013. The action plan includes nine voluntary targets, including one target on the reduction of salt consumption and another on halting the rise in obesity among adolescents and adults. Member States of the Western Pacific Region at the sixty-third session of the Regional Committee for the Western Pacific endorsed resolution WPR/RC63.R2 on Scaling up nutrition in the Western Pacific Region, which requests WHO to provide support to Member States in implementing the CIP. At the sixty-fourth session of the Regional Committee for the Western Pacific in October 2013, Member States endorsed the Western Pacific Regional Action Plan for the Prevention and Control Noncommunicable Diseases (2014–2020).

The Action Plan to Reduce the Double Burden of Malnutrition in the Western Pacific Region (2015–2020) was developed in response to resolution WPR/RC63.R2 on scaling up nutrition. It brings together nutrition-related actions from global and regional guidance documents to address diet-related diseases and reduce nutritional risk factors. The action plan creates a platform for sectors to accelerate action to address the double burden of malnutrition in partnership with civil society and relevant stakeholders.
1.1 The magnitude and impact of the double burden of malnutrition

The nutrition landscape has changed dramatically in the past decades. Rapid economic and income growth, urbanization, and globalization have contributed to changes in human diets, activity patterns and nutritional status.

Food systems have been transformed by macroeconomic and structural adjustment policies, liberalization of international food trade and foreign direct investments. This has changed the local availability, nutritional quality, affordability and acceptability of foods. Diets are shifting away from their traditional composition and are moving towards diets dominated by processed foods that are high in salt, fat and sugar and low in micronutrients and fibre. With these changes, diets have become an important risk factor for the growing NCD epidemic.

Malnutrition in all its forms heightens the risks for morbidity and mortality throughout the life course. While undernutrition impedes children’s achievement of their full economic, social, educational and occupational potential, unhealthy diets contribute to the rise in diet-related NCDs, which results in premature mortality (below 70 years of age) and the early onset of disease with high levels of disability. The double burden of malnutrition within the same individual is of increasing concern.

Children who are overweight can be micronutrient deficient, and stunted children may have increased risk of obesity. An emphasis must be placed on healthy nutrition throughout the life course.

Within the Western Pacific Region, undernutrition alone contributes to 187,000 preventable deaths of children under 5 years of age annually. Undernutrition, especially in the first 1000 days – from start of pregnancy, through infancy and young childhood and until 24 months of age – leads to increased childhood and adult morbidity and mortality. Among adults, undernutrition increases the risk of tuberculosis (TB). People with active TB are often malnourished and suffer from micronutrient deficiencies as well as weight loss and decreased appetite.

Overweight and obesity in children and adolescents increases the risk of diabetes and other NCDs in later life. In addition to increased future risks, obese children experience immediate health problems, including breathing difficulties, a tendency to be less physically active, increased risk of fractures and psychological effects. The risk of hypertension, coronary heart disease, stroke and type 2 diabetes grows progressively with increasing body mass index (BMI), which is used as the measure of obesity, as do the risks of cancers of the breast, colon, prostate, endometrium,
kidney, gall bladder and other organs. Co-morbidities of mental health problems and malnutrition have also noted, including eating disorders. Among older people psychological risk factors, including anxiety, dementia or depression can increase the risk of malnutrition; micronutrient deficiencies, overweight and obesity become more common in the same individuals.

Reducing the double burden of malnutrition has been critical in progress towards achieving the Millennium Development Goals (MDGs), especially MDG 1 (*eradicate extreme poverty and hunger*) and MDG 4 (*reduce child mortality*). Reducing the double burden of malnutrition remains critical in the post-2015 development agenda, particularly as it relates to the reduction of poverty. Stunted children earn an estimated 22% less than non-stunted children later in life and anaemia contributes to decreased adult productivity. Developed countries spend an estimated 2–7% of their health budget to treat obesity and associated chronic diseases. These may translate to proportionately higher spending for developing countries. Reducing the double burden of malnutrition will contribute to a reduction in lost wages and increased productivity that helps sustain economic and social development. If NCDs are left unmanaged, countries risk reversing achievements in development.

The past 20 years has seen a major reduction in childhood undernutrition, an important achievement in the WHO Western Pacific Region with more than 120 million children under the age of 5. The prevalence of stunting decreased from 38.2% in 1990 to 9.3% in 2013 and underweight from 17.5% to 3.7% over the same time frame.

Despite these remarkable achievements, the Region still has 11.6 million children stunted, and 4.7 million underweight. Only one third of infants in the Region are exclusively breastfed for the first six months. Anaemia remains an unresolved issue affecting one in four (3.6 million) pregnant women and one in five (94.1 million) women of reproductive age (WRA). Simultaneously, overweight is rapidly becoming a problem throughout the life course. More than 6.7 million children under 5 are overweight in the Region. In several countries, overweight affects 5–15% of under-5 children. Overweight among adolescents is increasing to alarming rates, reaching almost 60% in some Pacific island countries and areas and over 20% in some Asian countries.

One in four adults in the Region is overweight. Obesity is becoming increasingly prevalent, with adult obesity rates surging beyond 50% in several countries in the Pacific. One in three adults has high blood pressure in the Region. Over consumption of salt is a key risk factor for high blood pressure, and most countries exceed the recommended maximum limit for daily salt consumption, some by up to or more than four times.
1.2 Necessary conditions for improved nutrition

Undernutrition results from inadequate dietary intake of nutrients, as well as the presence of disease. Obesity and overweight result from more calories being consumed than expended.

Excess consumption of saturated fats, trans fats, sugars and salt; low consumption of fresh vegetables and fruits; and sedentary lifestyles are risk factors for NCDs. Improving the nutrition of populations, families and individuals and ensuring that nutritious food is available, affordable and acceptable are complex endeavours. Sustainable and health-promoting food systems, the provision of quality health services, and optimal care-giving practices in homes and communities are necessary conditions associated with improved nutrition. If any of these conditions is not met, malnutrition will be evident. These three conditions are shaped by economic, social and cultural factors (Fig. 1).

Food systems encompass production, processing, distribution, marketing, preparation and consumption of food. A health-promoting, sustainable and equitable food system should ensure that nutritious food is accessible, affordable, acceptable, and meets dietary and safety requirements. Marketing and labelling of food products should not be misleading, rather they should provide consumers with easy-to-understand and accurate information to enable informed decisions when making food choices. Agriculture, transport, trade and land use policies that enable local food production and self-sufficiency, as well as efficient distribution systems and infrastructure, promote sustainable food systems and impact nutritional outcomes.

Quality health services that all people can access without financial hardship are critical in reducing the double burden of malnutrition. Universal health coverage (UHC) supports nutrition goals by requiring essential nutrition services and counselling for all diseases, including for the four major NCDs: cancer, cardiovascular disease, diabetes and chronic respiratory conditions, at all levels. Growth monitoring; diagnosis and treatment of acute malnutrition and diet-related NCDs; treatment of diarrhoea; protection, promotion and support of breastfeeding; nutrition counselling; and provision of micronutrient supplementation are important nutrition services delivered through health facilities. Concurring health issues often exacerbate malnutrition. On the other hand, malnutrition may contribute to prolonged, serious disease manifestation.

While the Region progresses towards measles-free status, recent outbreaks point to faltering immunization coverage and vitamin A deficiency. Severe measles and its complications are more likely to occur in poorly nourished young children. Infants
born prematurely, people with acquired HIV/AIDS, tuberculosis or diabetes, smokers, and people regularly exposed to second-hand smoke all have reduced immune responses to diseases. When malnutrition is present, the likelihood of successfully preventing, managing and treating these conditions decreases.

Soil-transmitted helminthiasis, other parasitic infections and neglected tropical diseases contribute to malnutrition even though simple school-based interventions, such as deworming and treatment of infections, can prevent it.

Low birth weight results from weakened maternal health conditions, inadequate birth spacing, tobacco use and inappropriate alcohol consumption, as well as from suboptimal health-care practices.

**FIGURE 1.** Necessary conditions for nutrition improvement

Source: WHO, 2014
A life-course approach to improving nutrition and health requires a whole-of-society approach, and it should start before pregnancy and continue throughout pregnancy and with good caregiving practices after birth. A women’s nutritional and health status before and during pregnancy, including micronutrient deficiencies as well as gestational diabetes, obesity and hypertension, has implications on the health of the baby. Good caregiving practices include ensuring optimal feeding practices and nutrition decisions for infants and young children, especially breastfeeding, optimal complementary feeding and food nutrient density, feeding frequency, and feeding style. Breastfeeding protects infants immediately from infection and later in life by reducing the risk of obesity, hypertension and type 2 diabetes. It protects women by reducing the risk of breast and ovarian cancer and post-partum depression. Good caregiving practices include choosing fruits and vegetables and diets low in salt, trans fats, saturated fats and sugars, as well as encouraging healthy lifestyles. Good caregiving practices go beyond feeding practices and include ensuring safe drinking water, providing adequate sanitation and personal hygiene, early recognition of disease, stimulating language and other cognitive capabilities, and emotional support.

1.3 Actions needed to fight the double burden of malnutrition

The Action Plan to Reduce the Double Burden of Malnutrition in the Western Pacific Region (2015–2020) brings together actions from global and regional guidance on health and nutrition and encourages coordinated and comprehensive implementation of strategies to address diet-related diseases and to reduce risk factors for malnutrition. It provides a platform for dialogue for different sectors to accelerate action to address the double burden of malnutrition in partnership with civil society and stakeholders. While engaging with stakeholders, safeguarding public health from any form of real, perceived or potential conflicts of interest is of critical importance. The involvement of multiple sectors, including for example, agriculture, trade and industry, environment, communication, education and labour, is critical to fight malnutrition.
The action plan recommends actions for countries and WHO to achieve the following five objectives:

1. Elevate nutrition in the national development agenda.
2. Protect, promote and support optimal breastfeeding and complementary feeding practices.
3. Strengthen and enforce legal frameworks that protect, promote and support healthy diets.
4. Improve accessibility, quality and implementation of nutrition services across public health programmes and settings.
5. Use financing mechanisms to reinforce healthy diets.

Member States throughout the WHO Western Pacific Region have all taken action to fight malnutrition. The remarkable progress made by the Region in reducing undernutrition has been due to the increasingly supportive policy environments in many countries, driven by the *World Declaration and Plan of Action for Nutrition* (1992). The WHO *Global Nutrition Policy Review* (2013) included 17 responding countries from the Region. Most countries have developed policies aimed at addressing undernutrition (14); maternal, infant and young child nutrition (16); food security (15); food fortification (11); and obesity and diet-related NCDs (17).

In the Region policies and actions are in place for obesity prevention, and more generally for NCD prevention and control. However, where these are present they are often based on clinical and individual risk-based interventions. There are few population-based approaches and they could be more broadly linked to food security and malnutrition. Fragmented and vertical efforts may have been more convenient than whole-of-government approaches with policy dialogue and partnerships between government departments or ministries and other key stakeholders.

Globalization of food systems has created a complex context for nutrition policies and actions, hence a comprehensive approach is needed, but countries will have to prioritize strategic interventions that can contribute to the reversal of current trends. Trade policy frameworks, economic cooperation agreements and financial policies have contributed to the liberalization of international food trade and increased foreign direct investments in the Region. The impacts of trade, trade agreements and food security, as well as land-tenure systems and land-use policies on nutrition and health, need to be better understood and acted upon.
Objective 1 of the action plan addresses the need to elevate nutrition in the national development agenda and ensure adequate investment.

There is increasing concern about the sustainability of current food systems and its impact on the environment and health. As globalization continues, climatic and environmental issues, such as flooding, droughts and extremes of temperature, affect food security and impact on nutrition. Human-induced and natural disasters that result in the displacement of communities can push vulnerable groups into malnutrition in a matter of days. Coherence of policies and plans that impact nutrition, for example from health, agriculture, trade, environment, education, disaster risk management and social protection, is necessary to improve nutrition. Trade and agriculture policies should enhance the availability and affordability of healthy diets.

Monitoring policy development, implementation and the impact of nutrition action in a surveillance system help guide policy decisions and actions. However, nutrition data vary from country to country, and in some countries data may not be available at the national and subnational levels or not collected routinely. Policy and programme reviews are continuously needed to address the underlying and dynamic determinants of malnutrition. Objective 1 also recommends establishing and/or strengthening national and regional surveillance systems and getting them aligned to global monitoring frameworks for nutrition and NCDs.

Objective 2 addresses the protection, promotion and support for optimal breastfeeding and complementary feeding practices.

Improving the health and well-being of children and families includes enforcing legal instruments that protect breastfeeding practices and women's capacity to continue providing optimal feeding to their children even when returning to work. Only three countries have fully implemented the International Code of Marketing of Breast-milk Substitutes, and two countries provide the minimum recommended paid period of maternity leave recommended in the International Labour Organization (ILO) Maternity Protection Convention, 2000 (No. 183).

The overwhelming growth of food manufacturers, retail chains and transnational food-service operators has affected the availability, affordability, accessibility and diversity of food products, as well as the way they are marketed. Processed foods, often high in salt/sodium, sugar, fats (especially saturated fatty acids and trans-fatty acids), already dominate diets and nutrient patterns in many countries. To achieve the global targets for nutrition and NCD prevention and control, countries are encouraged to develop and enforce policy measures that engage food producers, processors and other commercial operators to reformulate and improve the nutrient composition...
of processed foods. Some countries have initiated efforts to reduce salt/sodium content of processed foods, including identification of population salt consumption and major sources of sodium in the diet and reformulation of a set number of products available in the market. Accurate food information that overrides false claims is critical to protect populations from misleading marketing, which affects decisions on feeding, often to the detriment of breastfeeding, healthy complementary feeding and healthier family food choices. This can be supported through enforced legal instruments and monitoring frameworks, empowered consumers, mobilized partners and good information systems. Industry interference with policy development and implementation needs to be prevented and counteracted through robust legal measures.

Objective 3 recommends establishing and/or strengthening legal frameworks to protect, promote and support healthy diets.

This includes protection of children from marketing of unhealthy foods and non-alcoholic beverages, nutrition labelling, nutrition and health claims, and reformulating processed foods, specifically to reduce salt content and eliminate trans-fatty acids.

Many standards and recommendations have stimulated actions to reduce the double burden of malnutrition. These include for example the WHO/UNICEF Global Strategy on Infant and Young Child Feeding; the WHO Global Strategy on Diet, Physical Activity and Health; subsequent guidance to support the implementation in schools and workplaces; and WHO Essential Nutrition Actions, which provide guidance on nutrition interventions targeting the first 1000 days of life. Some countries may need revitalization, retraining and supportive supervision of the workforce that delivers nutrition services through public health programmes and settings. Behavioural and social change interventions and health promotion initiatives identify and address the social and environmental factors that affect food preferences and nutrition practices.

As cultural practices and belief systems impact eating habits and food preferences, formative research is needed to gain insight on social and historical changes in diets of populations. Interventions should be based on such research and translated into sustained community-level programmes, also encouraging the scaling up of pilot projects. Capacity to deliver behavioural and social change interventions to improve nutrition often is limited.
**Objective 4** addresses accessibility, quality and implementation of nutrition services across the life course through public health programmes and settings, including schools and workplaces.

It calls for renewed efforts to gain insight of the underlying factors related to social, cultural and historical contexts for changing diets that can be applied to updated guidelines, clinical protocols and curricula for health and non-health professionals, to strengthen the workforce that delivers nutrition services, and to engage local governments and the communities in the design of plans to expand nutrition services.

**Objective 5** suggests financing mechanisms to reinforce healthy diets.

The changing nutrition landscape has, on the one hand, helped reduce undernutrition for hundreds of millions of people. On the other hand, however, it has created food environments that contribute to diet-related NCDs. Highly processed, energy-dense and nutrient-poor foods are often cheaper than healthier alternatives and are widely available. Healthier choices should be easy choices. Food pricing policies that favour healthier decisions contribute to nutrition improvements. Taxation of unhealthy foods including those high in salt, sugar and/or fat, could contribute to reduced consumption and increased revenue to support coherent planning for nutrition action. Cash transfer programmes providing financial aid to the poor and most vulnerable are highly complementary to other nutrition actions and are of increasing importance for improving nutrition.

Since the first International Conference on Nutrition, jointly organized by the Food and Agriculture Organization of the United Nations and WHO in 1992, the nutrition landscape has changed. It has become necessary to reposition nutrition to address the double burden of malnutrition and its complex web of determinants. Renewed high-level commitment presents opportunities to galvanize support needed to refocus policies, strategies, programmes, plans and resources to fight malnutrition.

It is clear that the pathways that have created the double burden of malnutrition are complex and inextricably linked. While there is no single guiding document that provides comprehensive guidance to address the double burden of malnutrition, countries may prioritize actions relevant to their context.

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1. See Appendix 3 for a list of global and regional guidance on nutrition.
2. Guiding principles and approaches

These principles and approaches guide the implementation of the *Action Plan to Reduce the Double Burden of Malnutrition in the Western Pacific Region (2015–2020)*.

**Human rights-based approach**

Strategies to address the double burden of malnutrition should be formulated and implemented in accordance with the principle of international human rights. Human rights law sets out components critical to this action plan, including available, accessible, affordable and acceptable food for all, sensitive to gender and life-course requirements.

**Life-course approach**

A life-course approach starts with maternal health. Integral components of a life-course approach include the promotion of breastfeeding; appropriate infant and child feeding practices; a healthy lifestyle for children, adolescents and youth; a healthy working life; healthy ageing; and care of people in later life.

**Evidence-informed policies and practices**

Evidence-informed guidance for nutrition interventions should be considered, where available. More country-specific research is needed to identify the common causal pathways of the double burden of malnutrition, the risks of economic (price surges) and environmental (climate variability) shocks that jeopardize the availability and affordability of food, access to healthy diets, feeding practices and options for diet diversification.
Health in All Policies (HiAP)

HiAP is an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies and avoids harmful health impacts to improve population health and health equity. Policy coherence, one of the outcomes of the HiAP approach, is critical for improved nutrition.

Participatory approach

Effective interventions to address the double burden of malnutrition require commitment and actions by various sectors (health and non-health) to ensure supportive policy coherence. It requires meaningful community participation and engagement, as well as active partnerships among national authorities, civil society organizations, academia and private sector, free from conflicts of interest.

Ecological approach

Strategies for reorienting food systems so that they become health promoting and environmentally sustainable mean simultaneous attention to food-producing natural environments, farmer livelihoods within a context of market forces, household incomes, food security, and food preparation capacity and preferences.
3. Action plan

This action plan brings together actions from global and regional guidance on health and nutrition and encourages coordinated and comprehensive implementation of strategies to address diet-related diseases and to reduce risk factors for malnutrition. It provides a platform for dialogue for various sectors to accelerate action to address the double burden of malnutrition in partnerships with civil society and relevant stakeholders. While engaging with stakeholders, safeguarding public health from any form of real, perceived or potential conflicts of interest is of critical importance.

It supports and strengthens the implementation of existing regional and global resolutions, strategies and plans. Emphasis is placed on a life-course approach to addressing the double burden of malnutrition, recognizing the critical importance of the first 1000 days of life.

Countries take leadership and ownership in developing responses to reduce the double burden of malnutrition and in harmonizing and aligning partner support. As appropriate to their national context, countries are encouraged to prioritize actions recommended in this action plan. Countries may combine the actions in a stand-alone national nutrition plan, or they may incorporate them into other plans, such as national NCD plans, infant and young child feeding plans, and trade and agricultural plans.

**GOAL:**

To improve nutrition throughout the life course in the Western Pacific Region.

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2. Annex 3 lists key global and regional guidance documents on improving nutrition.

3. Annex 4 summarizes outcomes of this action plan by stage of life.
3.1 Nutrition targets to be achieved by 2025

1. **40%** reduction in children under 5 that are stunted\(^4\)

2. **50%** reduction in anaemia in women of reproductive age\(^3\)

3. **30%** reduction of low birth weight\(^3\)

4. **0%** increase in childhood overweight\(^3\)

5. **0%** increase in adult and adolescent diabetes and obesity\(^5\)

6. **Increase** in the rate of exclusive breastfeeding in the first six months to at least 50%\(^3\)

7. **Reduce** and maintain childhood wasting to less than 5%\(^3\)

8. **30%** relative reduction in mean population intake of salt/sodium\(^4\)

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4. Global nutrition targets as stated in the *Comprehensive Implementation Plan on Maternal, Infant and Young Child Feeding*, against a 2012 baseline.

5. Global voluntary targets for the prevention and control of NCDs as stated in the *Western Pacific Regional Action Plan for the Prevention and Control of Noncommunicable Diseases (2014–2020)*, against a 2010 baseline.
3.2 Objectives, recommended actions and indicators

OBJECTIVE 1. Elevate nutrition in the national development agenda.

Nutrition should not only be included but should be high on the national development agenda and linked to poverty reduction, as well as other whole-of-society approaches to social and environmental development and health, which are being influenced by rapid and unplanned urbanization, globalization of food systems, disasters and climate change, as well as other factors. Nutrition is also an important goal of UHC. National nutrition planning, which includes planning with health and non-health sectors that impacts nutrition, for example planning in trade and/or agriculture, needs to be coherent and adequately funded.

RECOMMENDED ACTIONS FOR COUNTRIES

1. Strengthen and/or establish a functional national multisectoral coordinating structure as a mechanism to facilitate high-level policy dialogue on health and nutrition and to ensure coherent nutrition planning.

2. Conduct comprehensive reviews of plans and policies from health and non-health sectors impacting nutrition and update these for policy coherence through legal instruments, if necessary.

3. Advocate for sustainable funding for nutrition and ensure adequate national and subnational government investment for updated plans and policies that impact nutrition, as well as for monitoring, evaluation and surveillance.

4. Identify national targets and indicators for nutrition and NCDs that address priorities in countries.

Indicators for countries

a. National coordinating structure for nutrition strengthened and/or established and used for high-level multisectoral policy dialogue and coherent nutrition planning.
b. Funding secured for updated and costed plans, monitoring, evaluation and surveillance.

c. Nutrition reports generated to monitor achievement of implementation of national and global nutrition and NCD targets and indicators in line with global monitoring schedules.

RECOMMENDED ACTIONS FOR WHO

1. Facilitate high-level policy dialogue within the United Nations system and within countries to include action to address the double burden of malnutrition in national development plans.

2. Provide technical support to ensure policy coherence in national nutrition planning and investment across sectors, including advocacy and guidance for necessary investments of national and local governments.

3. Establish a regional monitoring system for nutrition, including indicators for legal instruments, policies, processes and outcomes, published on the WHO website by 2015 and updated regularly.

Indicators for WHO

a. Percentage of countries with updated and budgeted plans that impact on the double burden of malnutrition.

b. Established regional monitoring system for nutrition.

OBJECTIVE 2. Protect, promote and support optimal breastfeeding and complementary feeding practices.

Interventions to prevent the double burden of malnutrition start early in life. They include creating supportive and conducive environments for mothers, caregivers and children, especially in the first 1000 days, to protect, promote and support breastfeeding and optimal complementary feeding. Early initiation, exclusive breastfeeding and continued breastfeeding until 2 years of age and beyond, as well as optimal complementary feeding, set the stage for healthy growth and development and reduce the risk of childhood obesity and diabetes.
RECOMMENDED ACTIONS FOR COUNTRIES

1. Fully adopt, enforce and monitor the *International Code of Marketing of Breast-milk Substitutes* (the Code) and subsequent relevant World Health Assembly resolutions into effective national measures:
   - implement measures to eliminate conflicts of interest, including in health professional and civil society groups, and
   - conduct regular monitoring exercises on marketing practices.

2. Institutionalize the Baby Friendly Hospital Initiative (BFHI), including assessment and reaccreditation into national accreditation, licensing, financial standards or other acceptable health-care system structures.

3. Develop and align maternity protection as a minimum with the International Labour Organization Maternity Protection Convention, 2000 (No. 183).

4. Support optimal and appropriate complementary feeding practices of locally available and acceptable foods.

5. Implement measures to prohibit inappropriate promotion of complementary feeding.

6. Use social marketing approaches to promote breastfeeding as an intervention to prevent childhood undernutrition, reduce the risk of childhood obesity and prevent diabetes.

7. Incorporate the progress of infant and young child feeding in the national report to the Committee on the Rights of the Child.

8. Allocate funds to protect, promote and support breastfeeding based on internationally available benchmarks (e.g. World Bank). 

*Indicators for countries*

a. The Code fully adopted into effective national measures.

b. Code monitoring mechanisms in place and functioning.

c. Percentage of hospitals assessed within the past two years and meeting BFHI standards.

d. Maternity protection measures enacted and aligned with ILO Convention 183.

e. Regular reports to the Committee on the Rights of the Child include breastfeeding and complementary feeding.

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RECOMMENDED ACTIONS FOR WHO


2. Develop and disseminate guidance materials and support countries to eliminate conflicts of interest, including in health professional societies.


4. Engage international standards organizations to incorporate BFHI as requirement for quality assurance of health facilities.

5. Develop a guidance note on how to report on infant and young child feeding to the Committee on the Rights of the Child.

6. Develop mechanisms for sharing best practices on complementary feeding among countries.

Indicators for WHO

a. Percentage of countries that fully adopted and monitored the International Code of Marketing of Breast-milk Substitutes and subsequent relevant World Health Assembly resolutions into effective national measures.

b. Percentage of hospitals per country assessed within the past two years and meeting BFHI standards.

c. Percentage of countries with reports to the Committee on the Rights of the Child that include information on progress on infant and young child feeding.

d. Percentage of countries with enacted maternity protection measures aligned with ILO Convention 183.

OBJECTIVE 3. Strengthen and enforce legal frameworks that protect, promote and support healthy diets.

A legal and policy environment is necessary to ensure the population receives accurate and unbiased information and to ensure availability of nutritious food options. Food regulations and standards should align with Codex Alimentarius guidance, be risk-based, and facilitate trade in safe and healthier food. Legal frameworks
to protect, promote and support healthy diets are also within non-health sectors, including for example education (the WHO Set of Recommendations on the Marketing of Foods and Non-alcoholic Beverages to Children and measures to ban of sales of sugar-sweetened beverages to address childhood obesity) or agriculture (Codex Alimentarius). Whole-of-government approaches to salt reduction will contribute to the reduction of preventable deaths from hypertension. Evidence-based restrictions on marketing to children may be considered based on country-specific regulatory regimes to include food labelling and warnings; bans on advertising, sponsorship, brand mascots or characters popular with children; point-of-purchase displays; and communication through "viral marketing" of foods high in salt, sugar and fats.

RECOMMENDED ACTIONS FOR COUNTRIES

1. Implement measures to protect dietary guidance and food policy from undue commercial and other vested interests.

2. Ensure the following are fully incorporated into effective national measures:
   - the WHO Set of Recommendations on the Marketing of Foods and Non-alcoholic Beverages to Children;
   - standards for foods and drinks sold in schools;
   - health and nutrition claims based on Codex Alimentarius guidelines;
   - nutrition labelling (including front of pack labelling);
   - fortification of staple foods (such as rice and wheat) with vitamins and minerals relevant to country needs; and
   - whole-of-government approaches to salt reduction.

3. Develop guidelines, recommendations or policy measures that engage food producers, processors and other commercial operators to reformulate processed foods to reduce salt/sodium, sugar, saturated fatty acids and eliminate trans-fatty acids.

Indicators for countries

a. Measures implemented to protect dietary guidance and food policy from undue commercial and other vested interests.

b. Full incorporation of the following into effective national measures:
   - the WHO Set of Recommendations on the Marketing of Foods and Non-alcoholic beverages to Children;
— standards for foods and drinks sold in schools;
— health and nutrition claims based on Codex Alimentarius guidelines;
— nutrition labelling (including front of pack labelling);
— appropriate evidence-informed food fortification standards; and
— whole-of-government approaches to salt reduction.

c. Proportion of processed food reformulated to have improved nutrient composition.

RECOMMENDED ACTIONS FOR WHO

1. Develop and disseminate guidance materials and support countries to implement measures to protect dietary guidance and food policy from undue commercial and other vested interests.

2. Provide technical assistance to develop and implement effective national measures, including developing model legal instruments, for:
   • the WHO Set of Recommendations on the Marketing of Foods and Non-alcoholic beverages to Children;
   • standards for foods and drinks sold in schools;
   • health and nutrition claims based on Codex Alimentarius guidelines;
   • nutrition labelling (including front of pack labelling);
   • appropriate evidence-informed food fortification standard; and
   • whole-of-government approaches to salt reduction.

3. Provide technical assistance to countries in developing guidelines, recommendations or policy measures that engage food producers, processors and other commercial operators to reformulate processed foods.

Indicators for WHO

a. Percentage of countries with measures implemented to protect dietary guidance and food policy from undue commercial and other vested interests.

b. Percentage of countries incorporating the following into effective national measures:
   — the WHO Set of Recommendations on the Marketing of Foods and Non-alcoholic beverages to Children;
— standards for foods and drinks sold in schools;
— health and nutrition claims based on Codex Alimentarius guidelines;
— nutrition labelling (including front of pack labelling);
— food fortification standards; and
— whole-of-government approaches to salt reduction.

c. Percentage of countries in which processed food is reformulated.

d. Percentage of countries declared free of trans-fatty acids.

OBJECTIVE 4. Improve accessibility, quality and implementation of nutrition services across public health programmes and settings.

The health system has a major role in addressing the double burden of malnutrition, in particular, ministries of health might play a more active role in convening and building consensus with other sectors on policies that will result in improved nutrition outcomes. Accessibility and quality of nutrition services through the health system need to be ensured and sustained. UHC presents an important opportunity to ensure nutrition services also reach the most vulnerable and marginalized groups. Integration of nutrition into programmes that impact nutrition from other sectors (e.g. agriculture, water and sanitation, education and trade) and into settings-based programmes (e.g. including ensuring healthier food choices in canteens through health-promoting schools and workplaces) will contribute to reducing the double burden of malnutrition. During emergencies, support to reach affected and displaced populations needs to be mobilized.

RECOMMENDED ACTIONS FOR COUNTRIES

1. Strengthen delivery of nutrition services through public health programmes and settings by:
   - updating policies, guidelines, clinical protocols and curricula of health and non-health sectors on nutrition;

7. See Annex 4 for a detailed list of essential nutrition actions throughout the life course.
8. This includes integration of nutrition within settings, such as schools and workplaces.
• increasing the trained workforce (skilled and lay) that delivers nutrition services in health and non-health sectors;

• providing supportive supervision of staff through continuing professional development;

• ensuring availability and accessibility of basic nutrition supplies, commodities and equipment; and

• engaging local governments and communities in the design of plans to expand nutrition services, to ensure their integration into community-based actions (including health-promoting schools, marketplaces or workplaces) and linkage with relevant programmes (including WASH).

2. Enhance knowledge management to support delivery of evidence-informed nutrition services:

• establish/strengthen routine nutrition surveillance, including prioritization of vulnerable groups in disaster-prone areas to support emergency response;

• conduct research into feeding practices and options for diet diversification for families across the life course; and

• implement a comprehensive communication plan focused on feeding and dietary behavioural practices, including complementary feeding.

3. Ensure national disaster preparedness and response plans, including cost-effective and evidence-informed nutrition interventions:

• support capacity-building activities on nutrition in emergencies, including rapid nutritional assessments during and after emergencies.\(^9\)

**Indicators for countries**

a. Increased national and subnational coverage of nutrition services.

b. Updated policies, guidelines, clinical protocols and curricula in health and non-health sectors.

c. Established routine nutrition surveillance, including prioritization of vulnerable groups in disaster-prone areas to support emergency response.

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\(^9\) Including for example: measuring tapes and weighing scales, growth charts, stethoscope, blood pressure measurement devices, vitamin supplements, micronutrient powders, oral rehydration solution, essential tools for assessing risks through the Package of Essential Noncommunicable Disease Interventions for Primary Health Care in Low-resource Settings (PEN).

\(^10\) Building on available guidance, including for example The Management of Nutrition in Major Emergencies (WHO, 2000) and Guiding Principles for Feeding Infants and Young Children during Emergencies (WHO, 2004).
d. Identified and implemented optimal diverse diets for pregnant women and children (6–23 months).

e. Implemented communication plan focused on feeding and dietary behavioural practices.

f. Nutrition interventions included in national disaster planning and response plans.

**RECOMMENDED ACTIONS FOR WHO**

1. Provide technical support to all countries to strengthen delivery of nutrition services.

2. Develop and disseminate tools to support countries establishing and updating evidence-informed policies, guidelines, clinical protocol and curricula on nutrition.

3. Provide technical support to countries to integrate nutrition components into in- and pre-service curricula of health and non-health professionals, including from agriculture and education.

4. Provide technical support to establish/strengthen routine nutrition surveillance, including prioritization of vulnerable groups in disaster-prone areas.

5. Support research on feeding practices and diet diversity and to develop a comprehensive communication plan.

6. Technical support to countries to integrate nutrition into national disaster preparedness and response plans.

**Indicators for WHO**

a. Percentage of countries with updated policies, guidelines, clinical protocol and curricula.

b. Percentage of countries with inclusion of nutrition components in health and non-health sector programmes.

c. Percentage of countries with optimal diverse diets identified for pregnant women and children (6–23 months) identified.

d. Percentage of countries conducting routine nutrition surveillance, including vulnerable groups.

e. Percentage of countries with inclusion of nutrition components in public health programmes, including for disaster preparedness.
OBJECTIVE 5. Use financing mechanisms to reinforce healthy diets and ensure delivery and use of nutrition services.

Mobilizing resources and generating sustainable financing sources, for example through taxation, are pivotal to secure funds for policy implementation. Creating incentives through taxes and subsidies that improve the affordability and encourage consumption of healthier food products and discourage the consumption of less healthy options can be considered by countries as relevant to national contexts.\(^{11}\)

RECOMMENDED ACTIONS FOR COUNTRIES

1. Ensure nutrition services and supplies are affordable to all through government funding channeled through subsidies to service providers, people in need or insurance benefit packages.

2. Consider food pricing schemes/policies that favour healthier decisions, where applicable:
   - implement social protection schemes (e.g. conditional and unconditional cash transfer programmes, food vouchers and food discounts);
   - provide economic incentives (e.g. provision of raw agricultural inputs, tax discounts for producers) for local production, processing and distribution or importation, and marketing of healthier food options; and
   - impose tax increases on unhealthy foods (foods high in saturated and trans fats, salt, and free sugars) and consider allocating a percentage of this to promoting healthier food products.

Indicators for countries

a. Nutrition services and supplies are affordable to all through government funding channeled through subsidies to the service providers, people in need or insurance benefit packages.

b. Financing mechanisms to increase the consumption of healthier foods.

c. Financing mechanisms to support local production and/or importation of healthier food options.

RECOMMENDED ACTIONS FOR WHO

1. Facilitate the development of tools and models for calculating taxes and subsidies on food products.

2. Support countries to develop financial mechanisms to increase access to healthier foods and evidence-informed nutrition interventions.

Indicators for WHO

a. Percentage of countries with nutrition services and supplies covered through government funding.

b. Percentage of countries that developed financing mechanisms to increase the consumption of healthier foods.
4. Partnerships and networks: the role of the United Nations agencies and development partners

Various United Nations agencies and international organizations have been working to fight malnutrition for the past 30 years or more and, more recently, to fight NCDs. Several global calls have been made to reposition nutrition high on national government agendas, and numerous movements, networks and alliances have been constituted to achieve that goal.

A High-level Panel Discussion on Joint Action to Achieve Food and Nutrition Security in the Western Pacific Region was held at the sixty-third session of the WHO Regional Committee for the Western Pacific in Hanoi, Viet Nam, in September 2012. The panel discussion was attended by the Regional Director of the United Nations Children’s Fund (UNICEF) for East Asia and the Pacific, the Regional Director of the World Food Programme for Asia, the FAO Assistant Director-General and Regional Representative for Asia and the Pacific, and the WHO Regional Director for the Western Pacific. All emphasized the need for collaboration to address the nutrition problems where they still stubbornly exist and the problem of overweight/obesity and NCDs where they are increasing.

The United Nations Development Assistance Framework (UNDAF), which is a strategic programme framework that describes the collective, coherent response of the United Nations system to national development priorities, also provides an important platform to engage in nutrition improvement. Seven countries in the Region currently have UNDAF plans, including Cambodia, China, the Lao People’s Democratic Republic, Mongolia, Papua New Guinea, the Philippines and Viet Nam, and there is a plan for Pacific island countries and areas. More UNDAF plans are
being planned during the time frame of this action plan and provide an important opportunity to further emphasize nutrition for health and development.

To assist and guide countries in the process from formulation to implementation of comprehensive plans, United Nations agencies and development partners should consider:

1. creating convergence to support the creation of sustainable food systems, and the provision and maintenance of quality health-care services;

2. where possible, pooling expertise and resources to gain greater traction among government and other partners; and

3. ensuring policy coherence in addressing nutrition issues.
APPENDIX 1. GLOSSARY OF TERMS

Cash transfer programmes
Cash transfer programmes provide assistance in the form of money to increase household income. They can be unconditional or conditional. Conditions may include periodic health visits, growth monitoring, vaccination when applicable, antenatal care and education sessions. Cash transfer programmes are complementary to other nutrition actions and involve establishing eligibility, usually based on low income. Their effect on nutrition is both through increasing resources (income) and, for conditional programmes, enhancing use of services.

Codex Alimentarius
In 1963, the Sixteenth World Health Assembly approved the establishment of the Joint FAO/WHO Food Standards Programme with the Codex Alimentarius Commission as its principal organ. The protection of consumer health and fair practices in the food trade come under the Commission’s scrutiny. The Codex Alimentarius (the Food Code), has become the global reference point for consumers, food producers and processors, national food-control agencies and the international food trade.

Complementary feeding
Complementary foods include those that are manufactured or locally prepared, suitable as a complement to breast milk or to a breast-milk substitute when either becomes insufficient to satisfy the nutrition requirements of the infant. A working definition refers to complementary feeding as the process starting when breast milk or infant formula alone is not longer sufficient to meet the nutrition requirements of infants, and therefore other foods and liquids are needed along with breast milk or a breast-milk substitute. The target range for complementary feeding is generally taken to be 6–23 months.
Conflict of interest

A conflict of interest is any interest that may influence, or may reasonably be perceived to unduly influence, the objectivity and independence of professional judgment or actions. It can be individual or institutional and can be based on a commercial or financial interest or a private interest, such as an intellectual bias or a fixed policy position.

Double burden of malnutrition

The double burden of malnutrition refers to the burden of undernutrition (wasting, stunting, low birth weight and micronutrient deficiencies, including among those of normal weight or the overweight) along with the burden of overweight and obesity linked to a rise in NCDs.

Exclusive breastfeeding

The infant only receives breast milk without any additional food or drink, not even water. As a global public health recommendation, infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health.

Fortification

Food fortification is the addition of micronutrients to food, with the objective to add the level of specific nutrients or to restore nutrients lost during processing (e.g. milling) and preparation (e.g. washing, cooking).

Food security

Food security exists “when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life” [The World Food Summit, 1996].

Food systems

“Food systems encompass (i) activities related to the production, processing, distribution, preparation and consumption of food; and (ii) the outcomes of these activities contributing to food security (food availability, with elements related to production, distribution and exchange; food access, with elements related to affordability, allocation and preference; and food use, with elements related to nutritional value, social value and food safety). The outcomes also contribute to environmental and other securities (e.g. income).” [Global Environmental Change and Food Systems].
The United Nations Secretary-General’s High-Level Task Force on the Global Food Crisis (2012) has summarized the features of a healthy and sustainable food system as follows: “Sustainable, nutrition-sensitive agriculture and food security policies help improve the availability and accessibility of nutritious food, and promote healthy and sustainable diets and prosperity in rural areas.”

**ILO Convention 183**

The Maternity Protection Convention (2000) No. 183 is an international labour standard on maternity protection, including maternity benefits, cash benefits, job security during pregnancy or maternity leave, and working conditions. Safeguarding the health of expectant and nursing mothers and protecting them from job discrimination are preconditions for achieving genuine equality of opportunity and treatment for men and women at work and enabling workers to raise families in conditions of security.

**Industry interference**

The use of a multitude of tactics by industry to shape and influence public policy. It includes, but it is not limited to, the use of the industry’s economic and political power through lobbying, marketing, public relations and philanthropic contributions, among others, to maintain its ability to function with minimal to no regulatory constraints.

**International Code of Marketing of Breast-milk Substitutes**

The *International Code of Marketing of Breastmilk Substitutes* was adopted by World Health Assembly Resolution (WHA34.22) in 1981. The Code bans all promotion of bottle feeding and sets out requirements for labelling and information on infant feeding. Any activity, which undermines breastfeeding, violates the Code. The Code and subsequent related resolutions by the World Health Assembly are intended as a minimum requirement in all countries.

**Life-course approach to improve nutrition**

People have unique nutritional requirements at different stages of the life course, from conception to infancy, through childhood and adolescence, during adulthood, and into old age. Pregnancy and the postpartum are unique stages of life bringing about particular nutritional needs.
Low birth weight

Low birth weight is defined as newborn infants weighing as less than 2500 grams (up to and including 2499 grams).

Malnutrition

Malnutrition refers to the body not getting the right balance of nutrients and calories needed to sustain good health and development. It arises mainly as a result of inadequate or unbalanced diets, but is also caused by poor nutrient absorption or loss of nutrients due to illness. The causes of malnutrition are directly related to inadequate dietary intake as well as disease, but are directly related to many factors, including household food security, maternal and child care, health services, environment and other factors. Malnutrition thus includes undernutrition, micronutrient deficiencies and overweight/obesity.

Noncommunicable diseases

Noncommunicable diseases (NCDs) are not passed from person to person. They are of long duration and generally slow progression. The four main types of NCDs are cardiovascular diseases (e.g. heart disease), cancers, chronic respiratory diseases (e.g. asthma and chronic obstructed pulmonary disease) and diabetes. Tobacco use, physical inactivity, unhealthy diets and the harmful use of alcohol are the chief risk factors for most NCDs.

Nutrient profiling

Nutrient profiling is the science of classifying or ranking foods according to their nutritional composition for reasons related to preventing disease and promoting health. Nutrient profiling can be used for various applications, including marketing of foods to children, health and nutrition claims, product labelling logos or symbols, information and education, provision of food to public institutions, and the use of economic tools to orient food consumption.

Overweight/obesity

Overweight among children under 5 years of age is defined as weight-for-height greater than 2 standard deviations (SD) of the WHO Child Growth Standards median.

A population measure of obesity is the body mass index (BMI), a person’s weight (in kilograms) divided by the square of his or her height (in metres).
For children aged 5–9 years, the BMI for age is used as an indicator. A BMI for age greater than or equal to 1 SD (equivalent to BMI 25 kg/m² at 19 years) is considered overweight, and a BMI for age greater than or equal to 2 SD (equivalent to BMI 30 kg/m² at 19 years) as obese.

An adult with a BMI of 30 or more is generally considered obese. A person with a BMI equal to or more than 25 is considered overweight.

**Policy coherence**

Policy coherence promotes mutually reinforcing policy actions across government departments and agencies. Policies from health, education, trade, agriculture, water and sanitation, and other relevant government sectors should positively reinforce national development goals and contribute to reducing the double burden of malnutrition.

**Food pricing schemes**

Price is one of the most important factors influencing food choice. Food pricing schemes include the introduction of taxes on unhealthy foods, including foods containing high levels of saturated or trans fat, salt and free sugar, and subsidies on healthy foods, including foods high in fibre and micronutrients. Taxation, subsidies or direct pricing to influence prices may encourage healthier choices.

**Stunting**

Stunting is defined as height-for-age below – 2 SD of the WHO Growth Standard median. Stunted growth reflects a process of failure to reach linear growth potential as a result of suboptimal health and/or nutritional conditions.

**Undernutrition**

The WHO Global Database on Child Growth and Malnutrition uses a Z-score cut-off point of < – 2 SD to classify low weight-for-age, low height-for-age and low weight-for-height as moderate and severe undernutrition, and < – 3 SD to define severe undernutrition.

**Underweight**

Underweight among children below 5 years of age is defined as weight-for-age below – 2 SDs of the WHO Growth Standard median.
**Unhealthy foods**

Foods high in saturated fats, trans-fatty acids, free sugars and salt. Countries can choose to distinguish food types in several ways, for example by using national dietary guidelines, definitions set by scientific bodies or nutrient profiling models.

**Wasting**

Wasting is defined as weight-for-height below −2 SDs of the WHO Growth Standard median. Wasting or thinness indicates in most cases a recent and severe process of weight loss, which is often associated with acute starvation and/or severe disease. However, wasting may also be the result of a chronic unfavourable condition.

**Water safety plans**

Using health-based targets as a point of departure, water safety plans provide a systematic approach towards assessing, managing and monitoring risks from catchment to consumer. It provides a way of structuring and applying tools, methods and procedures to replace end-of-pipe measurements of water quality by a hazard analysis critical control points approach, referring to a series of actions to be taken to ensure safety of the drinking-water supply chain at critical control points. Water safety plans follow the logical sequence of this chain and enable system-tailored hazard identification and risk assessment/management. Wastewater or sanitation safety plans work in a similar manner.
# Appendix 2. Nutrition Situation in the Western Pacific Region

## Table A2.1

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Percentage of students who were overweight (≥ +1SD from median for BMI by age and sex)</th>
<th>Percentage of students who were obese (≥ +2SD from median for BMI by age and sex)</th>
<th>Percentage of students who usually drank carbonated soft drinks one or more times per day during the past 30 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>2013</td>
<td>3.7</td>
<td>0.4</td>
<td>45.6</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>2011</td>
<td>58.5</td>
<td>24.3</td>
<td>61.5</td>
</tr>
<tr>
<td>Fiji</td>
<td>2010</td>
<td>19.2</td>
<td>5.2</td>
<td>–</td>
</tr>
<tr>
<td>Kiribati</td>
<td>2011</td>
<td>39.8</td>
<td>8.2</td>
<td>22.3</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2012</td>
<td>23.7</td>
<td>9.6</td>
<td>31.3</td>
</tr>
<tr>
<td>Mongolia</td>
<td>2013</td>
<td>11.5</td>
<td>1.6</td>
<td>33.8</td>
</tr>
<tr>
<td>Nauru</td>
<td>2011</td>
<td>44.5</td>
<td>16.7</td>
<td>–</td>
</tr>
<tr>
<td>Niue</td>
<td>2010</td>
<td>56.7</td>
<td>29.7</td>
<td>77.3</td>
</tr>
<tr>
<td>Philippines</td>
<td>2011</td>
<td>10.2</td>
<td>2.8</td>
<td>42.2</td>
</tr>
<tr>
<td>Samoa</td>
<td>2011</td>
<td>51.7</td>
<td>19.2</td>
<td>53.5</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>2011</td>
<td>20</td>
<td>2.2</td>
<td>45.1</td>
</tr>
<tr>
<td>Tonga</td>
<td>2010</td>
<td>59.6</td>
<td>21.9</td>
<td>57</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>2011</td>
<td>11.4</td>
<td>0.1</td>
<td>37.9</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>2013</td>
<td>6.1</td>
<td>0.6</td>
<td>34.6</td>
</tr>
</tbody>
</table>

Source: Global School-based Health Survey
<table>
<thead>
<tr>
<th>Country</th>
<th>Low birth weight*</th>
<th>Stunting++ (&lt;-2^*)</th>
<th>Wasting++ (&lt;-2^*)</th>
<th>Underweight++ (&gt;-2^*)</th>
<th>Overweight++ (&gt; +2^*)</th>
<th>Exclusive breastfeeding* (&lt; 6) months</th>
<th>Anaemia in women of reproductive age** (\times)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>11</td>
<td>41</td>
<td>11</td>
<td>29</td>
<td>2</td>
<td>74</td>
<td>51</td>
</tr>
<tr>
<td>China</td>
<td>–</td>
<td>9</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>28</td>
<td>22</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic</td>
<td>15</td>
<td>44</td>
<td>6</td>
<td>27</td>
<td>2</td>
<td>40</td>
<td>36</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>11</td>
<td>50</td>
<td>14</td>
<td>28</td>
<td>14</td>
<td>56</td>
<td>37</td>
</tr>
<tr>
<td>Philippines</td>
<td>21</td>
<td>30</td>
<td>8</td>
<td>20</td>
<td>5</td>
<td>34</td>
<td>32</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>13</td>
<td>33</td>
<td>4</td>
<td>12</td>
<td>3</td>
<td>74</td>
<td>33</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>5</td>
<td>23</td>
<td>4</td>
<td>12</td>
<td>5</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>Western Pacific Region (average)</td>
<td>–</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>30</td>
<td>24</td>
</tr>
</tbody>
</table>

* Children < 5 years of age
** Anaemia in women of reproductive age

#: Global Health Observatory (2014)

Figures have been approximated for presentation purposes
Figure A2.1: Anemia prevalence estimates in high-risk populations in the Western Pacific Region (1995-2011). Figure arranged according to prevalence among children 0-59 months.
## APPENDIX 3. GLOBAL AND REGIONAL GUIDANCE DOCUMENTS: YEAR AND WEBSITES

<table>
<thead>
<tr>
<th>Global and regional guidance documents</th>
<th>Year</th>
<th>Weblink</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Nutrition Actions: Improving maternal, newborn infant and young child health and nutrition</td>
<td>2013</td>
<td><a href="http://apps.who.int/iris/bitstream/10665/84409/1/9789241505550_eng.pdf">http://apps.who.int/iris/bitstream/10665/84409/1/9789241505550_eng.pdf</a></td>
</tr>
<tr>
<td>Global and regional guidance documents</td>
<td>Year</td>
<td>Weblink</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------------------------</td>
<td>------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>NCD Road Map Report (Pacific) (World Bank, SPC, WHO)</td>
<td>2014</td>
<td>(Finalization in progress)</td>
</tr>
</tbody>
</table>
**APPENDIX 4. OUTCOMES OF THE ACTION PLAN TO REDUCE THE DOUBLE BURDEN OF MALNUTRITION IN THE WESTERN PACIFIC REGION BY STAGE OF LIFE**

<table>
<thead>
<tr>
<th>OUTCOMES OF THE ACTION PLAN</th>
<th>Birth</th>
<th>Infants and young children</th>
<th>Pre-school 3–6 years</th>
<th>Primary school age</th>
<th>Secondary school age</th>
<th>Women</th>
<th>Working age population</th>
<th>Older people</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Breastfeeding (BF)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiation of BF within 1 hour (and appropriate and timed cord clamping)$^2$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1b. Exclusive BF for 6 months and continued BF for $\geq$ 2 years$^2$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>2. Complementary feeding (CF)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2a.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Introduction of CF at 6 months while continuing BF$^2,4$</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2b.</td>
<td></td>
<td></td>
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<td>Increased consumption of locally available, diverse foods$^2,4,5$</td>
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<tr>
<td>Fortified complementary foods or multi-micronutrient supplements for home use (when necessary)$^2,4$</td>
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### 3. Fortification

3a. Fortified staple foods and condiments: flour, oil, salt, fish and soy sauce (country specific)

### 4. Healthy diets

4a. Reduced level of salt/sodium in prepared or processed foods

4b. Trans fats replaced with unsaturated fats

4c. Reduced saturated fatty acids in foods and replaced with unsaturated fats

4d. Reduced free added sugars in food and non-alcoholic

4e. Reduced portion size and energy density of foods and limit to calories

4f. Increased consumption of fruits and vegetables

4g. Reduced consumption of processed foods high in salt, sugar and trans fats

### 5. Micronutrient supplementation and treatments

5a. Iron/folic acid supplementation:
   - women of reproductive age: weekly if anaemia >20%
   - pregnancy: weekly if not anaemic, daily if anaemic or unknown
<table>
<thead>
<tr>
<th>OUTCOMES OF THE ACTION PLAN</th>
<th>Birth</th>
<th>6 months to 2 years</th>
<th>Pre-school 3–6 years</th>
<th>Primary</th>
<th>Secondary</th>
<th>WRA pregnant</th>
<th>Working age population</th>
<th>Older people</th>
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<td>5b. Deworming, if a public health problem$^4$</td>
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<td>5c. Vitamin A if a public health problem$^4$</td>
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<td>5d. Calcium supplementation in pregnancy where calcium intake is low$^4$</td>
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<td>5e. Iodine to pregnant and lactating women (countries where &lt; 20% of households have access to iodized salt)$^4$</td>
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<th>6. Height, weight and age monitoring$^4$</th>
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<tr>
<td>6a. Growth monitoring (weight, height, age) and counselling$^6$</td>
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<td>6b. Growth surveillance using BMI$^4$</td>
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<td>6c. BMI screening$^4$</td>
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<th>7. Water and sanitation$^4$</th>
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<tr>
<td>7a. Access to safe water and proper sanitation$^8$</td>
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</table>

$^4$ Objective 1: repositioning nutrition planning contributes to all outcomes

$^2, 3, 4, 5$: Numbers refers to objectives of the action plan that contribute to the outcome