STRATEGIC APPROACH AND IMPLEMENTATION GUIDANCE
STRATEGIC APPROACH AND IMPLEMENTATION GUIDANCE
Structure of the three volumes

The “Approach to Nutrition Programming for the East Asia – Pacific Region” comprises three volumes. Volume 1 articulates a set of packages of nutrition interventions for different contexts, and provides more specific guidance on how UNICEF can work with national governments to scale up effective nutrition interventions in multiple sectors. Volume 2 provides a detailed analysis of the situation in the region, and Volume 3 contains a detailed discussion of the causes and consequences of maternal and child under and over nutrition and the evidence base for the interventions proposed in the different packages. The glossary, list of acronyms and full bibliography for all three volumes are found in Volume 1; each Volume also contains all the cited references as footnotes.

All data was current as of August 2014 and it is acknowledged that new data may become available in the future.

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United Nations Children’s Fund
UNICEF East Asia and Regional Office (EAPRO)

19 Phra Atit Road
Bangkok 10200
Thailand

Website: www.unicef.org/eapro
E-mail: asiapacificinfo@unicef.org
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Acute malnutrition – Also known as ‘wasting’, acute malnutrition is characterized by a rapid deterioration in nutritional status over a short period of time. In children, it can be measured using the weight-for-height nutritional index or mid-upper arm circumference. There are different levels of severity of acute malnutrition: moderate acute malnutrition (MAM) and severe acute malnutrition (SAM).

Anaemia – Characterized by reduction in haemoglobin levels or red blood cells, which impairs the ability to supply oxygen to the body’s tissues, anaemia is caused by inadequate intake and/or poor absorption of iron, folate, vitamin B12, and other nutrients. It is also caused by infectious diseases such as malaria, hookworm infestation, and schistosomiasis; and genetic diseases. Women and children are high-risk populations.

Anthropometry – Anthropometry is the use of body measurements such as weight, height, and mid-upper arm circumference (MUAC), in combination with age and sex, to gauge growth or failure to grow.

Breastfeeding – optimal – The recommended ‘optimal breastfeeding practices” are initiation of breastfeeding within the first hour after the baby’s birth, exclusive breastfeeding for the first six months and continued breastfeeding up to two years or beyond.

Breastmilk substitutes (BMS) – Any food marketed or otherwise represented as a partial or total replacement for breastmilk, whether or not suitable for that purpose.

Chronic malnutrition – Chronic malnutrition, also known as ‘stunting’, is a form of growth failure, which develops over a long period of time. Inadequate nutrition over long periods of time (including poor maternal nutrition and poor infant and young child feeding practices) and/or repeated infections can lead to stunting. In children, it can be measured using the height-for-age nutritional index.

Complementary feeding – The use of age-appropriate, adequate, and safe solid or semi-solid food in addition to breast milk or a breast milk substitute. The process starts when breast milk or infant formula alone is no longer sufficient to meet the nutritional requirements of an infant. It is not recommended to provide any solid, semi-solid or soft foods to children less than 6 months of age. The target range for complementary feeding is generally considered to be 6-23 months.
Exclusive breastfeeding – An infant receives only breast milk and no other liquids or solids, not even water, with the exception of oral rehydration salts (ORS) or drops or syrups consisting of vitamins, mineral supplements or medicines. UNICEF recommends exclusive breastfeeding for infants aged 0-6 months.

Foetal programming concept – Poor foetal growth, small size at birth, and continued poor growth in early life followed by rapid weight gain later in childhood raises the risk of non-communicable diseases. Attaining optimal growth before 24 months of age is desirable; becoming stunted but then gaining weight disproportionately after 24 months is likely to increase the risk of becoming overweight.

Food fortification – The practice of deliberately increasing the content of essential micronutrients, i.e. vitamins and minerals (including trace elements) in a food, so as to improve the nutritional quality of the food supply and provide a public health benefit with minimal risk to health. This may also be known as “enrichment”.

Food security – Exists when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life.

Growth faltering – The failure to gain adequate weight for one’s age between two serial weightings.

Home-based fortification – It takes place by pouring, squeezing, or sprinkling a supplement onto food after cooking.

Infant and young child feeding (IYCF) – Term used to describe the feeding of infants (less than 12 months old) and young children (12-23 months old). IYCF programmes focus on the protection, promotion, and support of exclusive breastfeeding for the first six months, on timely introduction of complementary feeding and on continued breastfeeding for two years or beyond. Issues of policy and legislation around the regulation of the marketing of infant formula and other breast milk substitutes are also addressed by these programmes.

Kwashiorkor – Clinical form of acute malnutrition resulting from protein-energy deficiency characterized by oedema (swelling). Children with kwashiorkor typically have bilateral pitting oedema, reduced fat and muscle tissue, skin lesions (dermatosis) and frequent skin infections, and appear apathetic and lethargic.

Low birth weight refers to a birth weight of less than 2,500 grams. This may be due to prematurity, growth restriction, or a combination of the two.

Macronutrients – Fat, protein, and carbohydrates that are needed for a wide range of body functions and processes.

Malnutrition – A broad term commonly used as an alternative to ‘undernutrition’, but which technically also refers to overnutrition. People are malnourished if their diet does not provide adequate nutrients for growth and maintenance or if they are unable to fully utilize the food they eat due to illness (undernutrition). They are also malnourished if they consume too many calories (overnutrition).

Marasmus – Clinical form of acute malnutrition characterized by severe weight loss or wasting. Marasmic children are extremely thin and typically have grossly reduced fat and muscle and thin flaccid skin, and are irritable.
Micronutrients – Essential vitamins and minerals required by the body in miniscule amounts throughout the life cycle.

Micronutrient deficiency diseases – When certain micronutrients are severely deficient owing to insufficient dietary intake, insufficient absorption, and/or suboptimal utilization of vitamins or minerals, specific clinical signs and symptoms may develop. Scurvy, beriberi and pellagra are classic examples of nutritional diseases. Globally, the most critical deficiencies that we have data for are in vitamin A, iron, iodine, zinc, and folic acid, due to their importance in the immune system, organ development, and growth. Micronutrient deficiencies are measured by a variety of indicators, including biomarkers and clinical signs.

Micronutrient malnutrition – Suboptimal nutritional status caused by a lack of intake, absorption or utilization of one or more vitamins or minerals. Excessive intake of some micronutrients may also result in adverse effects.

Mid-upper-arm circumference – The circumference of the mid-upper arm is measured on a straight left arm (in right-handed people) midway between the tip of the shoulder (acromion) and the tip of the elbow (olecranon). It measures acute malnutrition or wasting in children aged 6-59 months. The mid-upper-arm circumference (MUAC) tape is a plastic strip, marked with measurements in millimetres. MUAC < 115mm indicates that the child is severely malnourished; MUAC < 125mm indicates that the child is moderately malnourished.

Moderate acute malnutrition – Defined as weight-for-height between minus two and minus three standard deviations from the median weight-for-height for the standard reference population.

Nutritional requirements – The amount of energy, protein, fat, and micronutrients needed for an individual to sustain a healthy life.

Nutrition specific interventions and programme – Interventions or programmes that address the immediate determinants of foetal and child nutrition and development – adequate food and nutrient intake, feeding, caregiving and parenting practices, and low burden of infectious diseases. Examples: adolescent, preconception, and maternal health and nutrition; maternal dietary or micronutrient supplementation; promotion of optimum breastfeeding; complementary feeding and responsive feeding practices and stimulation; dietary supplementation; diversification and micronutrient supplementation or fortification for children; treatment of severe acute malnutrition; disease prevention and management, nutrition in emergencies.

Nutrition sensitive interventions and programmes – Interventions and programmes that address the underlying determinants of foetal and child nutrition and development – food security; adequate caregiving resources at the maternal, household and community levels; and access to health services and a safe and hygienic environment – and incorporate specific nutritional goals and actions. Nutrition sensitive programmes can serve as delivery platforms for nutrition specific interventions, potentially increasing their scale, coverage, and effectiveness. Examples: agriculture and food security; social safety nets; early child development; maternal mental health; women’s empowerment; child protection; schooling; water, sanitation, and hygiene; health and family planning services.

Nutrition security – Achieved when secure access to an appropriately nutritious diet is coupled with a sanitary environment, adequate health services, and care.

Overnutrition – A state in which nutritional intake greatly exceeds nutritional need. Overnutrition manifests itself as overweight (BMI≥25) and obesity (BMI≥30). In children under five, overnutrition is defined as weight-for-height more than 2 standard deviations from the
reference population (>2 SD is overweight and >3 SD is obese).

Recommended daily allowance – The average daily dietary intake of nutrients that is sufficient to meet the nutrient requirements of nearly all (approximately 98 per cent of) healthy individuals in a given population. For calories, the recommended daily allowance is based on the mean for a given population.

Ready-2-use Therapeutic Food (RUTF) – Specialized ready-to-eat, portable, shelf-stable products, available as pastes, spreads, or biscuits that are used in a prescribed manner to treat children with severe acute malnutrition.

Seasonality – Seasonal variation of various factors – such as disease, sources of food and the agricultural cycle – that affect nutritional status.

Severe acute malnutrition – A result of recent (short-term) deficiency of protein, energy, and minerals and vitamins leading to loss of body fats and muscle tissues. Acute malnutrition presents with wasting (low weight-for-height) and/or the presence of oedema (i.e., retention of water in body tissues). Defined for children aged 6-60 months, as a weight-for-height below – 3 standard deviations from the median weight-for-height for the standard reference population or a mid-upper arm circumference of less than 115 mm or the presence of nutritional oedema or marasmic-kwashiorkor.

Stunting – Technically defined as below minus 2 standard deviations from median height-for-age of a reference population. See Chronic malnutrition.

Supplementary feeding programme - There are two types of supplementary feeding programmes. Blanket supplementary feeding programmes target a food supplement to all members of a specified at-risk group, regardless of whether they have moderate acute malnutrition or not. Targeted supplementary feeding programmes provide nutritional support to individuals with moderate acute malnutrition. To be effective, targeted supplementary feeding programmes should always be implemented when there is sufficient food supply or an adequate general ration for the general population, while blanket supplementary feeding programmes are often implemented when general food distribution for the household has yet to be established or is inadequate for the level of food security in the population. The supplementary ration is meant to be additional to, and not a substitute for, the general ration.

Therapeutic feeding programme – A programme that admits and treats severe acute malnutrition either at the health facility level or on an outpatient basis.

Undernutrition – An insufficient intake and/or inadequate absorption of energy, protein or micronutrients that in turn leads to nutritional deficiency.

Underweight – Wasting or stunting or a combination of both, measured through the weight-for-age nutritional index.

Vulnerability – The characteristics of a person or group in terms of their capacity to anticipate, cope with, resist, and recover from the impact of a natural or human-made hazard.

Wasting – Technically defined as below minus 2 standard deviations from median weight-for-height of a reference population. See Acute malnutrition.

Weight-for-age – Nutritional index, a measure of underweight (or wasting and stunting combined).

Weight-for-height – Nutritional index, a measure of both acute malnutrition or wasting and overweight.
ABBREVIATIONS

AIDS  acquired immunodeficiency syndrome  
ANC  antenatal care  
ARV  antiretroviral treatment  
BFHI  Baby Friendly Hospital Initiative  
BMI  body mass index  
BMS  breastmilk substitutes  
CHDs  child health days  
CHWs  community health workers  
CIP  Comprehensive Implementation Plan  
CLTS  Community-Led Total Sanitation  
DBM  double burden of malnutrition  
DPRK  Democratic People’s Republic of Korea  
EAP  East Asia and the Pacific  
EBF  exclusive breastfeeding  
ECD  early child development  
EE  environmental enteropathy  
eLENA  electronic Library of Evidence for Nutrition Actions  
ENA  Essential Nutrition Actions  
FAO  Food and Agricultural Organization  
FOAD  foetal origins of adult disease  
GDP  gross domestic product  
GMP  growth monitoring and promotion  
HIV  human immunodeficiency virus  
IEC  information, education and communication  
IFA  iron and folic acid  
IMCI  Integrated Management of Childhood Illness  
IQ  intelligence quotient  
IYCF  infant and young child feeding  
LBW  low birth weight  
LiST  Lives Saved Tool  
LMICS  low- and middle-income countries  
MAM  moderate acute malnutrition  
MNPs  multiple micronutrient powders
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>MNS</td>
<td>multiple micronutrient supplements</td>
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<tr>
<td>MoRES</td>
<td>Monitoring of Results for Equity Systems</td>
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<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<tr>
<td>MUAC</td>
<td>mid-upper arm circumference</td>
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<td>NCDs</td>
<td>non-communicable diseases</td>
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<tr>
<td>NFSI</td>
<td>Nutrition-Friendly Schools Initiative</td>
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<tr>
<td>NGO</td>
<td>non governmental organization</td>
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<tr>
<td>NTDs</td>
<td>neural tube defects</td>
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<tr>
<td>ODF</td>
<td>open defecation free</td>
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<tr>
<td>ORS</td>
<td>oral rehydration salts</td>
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<tr>
<td>PMTCT</td>
<td>prevention of mother to child transmission (of HIV)</td>
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<td>PNG</td>
<td>Papua New Guinea</td>
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<tr>
<td>RUTF</td>
<td>ready-to-use therapeutic food</td>
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<tr>
<td>SAM</td>
<td>severe acute malnutrition</td>
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<tr>
<td>SBCC</td>
<td>social and behaviour change communication</td>
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<tr>
<td>SGA</td>
<td>small for gestational age</td>
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<td>SUN</td>
<td>Scaling Up Nutrition</td>
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<tr>
<td>UNDAF</td>
<td>United Nations Development Assistance Framework</td>
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<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<tr>
<td>USAID</td>
<td>US Agency for International Development</td>
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<tr>
<td>WASH</td>
<td>water, sanitation and hygiene</td>
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<td>WHA</td>
<td>World Health Assembly</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WFP</td>
<td>World Food Programme</td>
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EXECUTIVE SUMMARY

Background and context

With the amassed scientific evidence and programmatic experience over the past decade, a vastly different global policy environment for nutrition, a changing landscape and emerging challenges and opportunities, UNICEF’s global nutrition strategy (the joint Health and Nutrition Strategy 2006-2015) needed updating, particularly as we reach the endpoint of the Millennium Development Goals, and as we move into a post 2015 world. Similarly, the East Asia-Pacific Regional Nutrition Strategy of 2003 needed to be updated.

Considering the overwhelming evidence on the negative impact of undernutrition on overall development, and faced with serious planet pressures of population growth, climate change, urbanization, both communicable and non-communicable disease threats, and transitioning diets, this is a critical moment in time to implement at scale sustainable multi-sectorial actions for improving nutrition. This regional approach to nutrition has been developed in the context of, and to take advantage of, increased interest and prioritization of nutrition in recent years. Improving nutrition is high on the political agenda of both global and regional leaders.

In the East Asia and Pacific region, despite economic growth, and achievements in health and nutrition indicators, maternal and child malnutrition rates and burden remain high. Almost 28 million children are stunted in the East Asia and Pacific region, with one third of those children in China and another third in Indonesia.

Three of the top 10 countries with the greatest number of stunted children are in this region. Eight countries in the region have a stunting prevalence above 30%, and if China is removed from the dataset, the average regional prevalence remains over 30%. Close to 8 million children are wasted, with 2.5 million of them severely wasted; the majority in Indonesia. It is of great concern that the coverage of the treatment of severe acute malnutrition is extremely low (0.8%) in the region, with very few health facilities providing treatment and few trained staff. Anaemia is a moderate public health problem for either women or children in 12 countries of the region and it is a severe problem in 14. In seven countries less than half of all babies start breastfeeding within an hour, and in 11 countries more than half of all babies less than six months old are not exclusively breastfed. Data is lacking on complementary feeding, despite its importance for child growth, but in countries with available data only about 50% are considered to have a “minimum acceptable diet”. Further, these...
national figures hide significant disparities; rural populations are more undernourished, for example stunting prevalence is four times higher in rural areas in China than urban areas; and poorer communities are more stunted, by 1.5 to three times.

While the major problem of the region remains undernutrition, a growing number of countries are starting to suffer from the “double burden of malnutrition” – the coexistence of under and over nutrition in the same communities, or even the same families. In particular, the Pacific Island countries, Indonesia, China, Mongolia, Malaysia, and Thailand are beginning to experience overnutrition in either women or children. Close to 11 million of this region’s children are overweight. More than half of them are in China and a quarter are in Indonesia. This phenomenon is caused by increased consumption of energy-dense, processed foods in place of traditional cereals, fruits and vegetables and an increasingly sedentary lifestyle. It is also occurring when children who experienced growth faltering during the first 1,000 days of life, are subsequently exposed to more “obesity prone” environments later in life, and have a propensity to lay down fat in adulthood due to their early life “programming”. The solution is thus prevention of foetal growth restriction and infant and young child growth faltering in the first two years, as well as lifestyle changes and legislative measures focused on older children.

UNICEF is the ‘best-positioned’ UN agency to support countries to address these nutrition problems as a result of its mandate to work with multiple sectors, at all levels, with a focus on women and children. Reducing maternal and child under and overnutrition will have impacts upon adult, maternal, new-born and child mortality, new-born disability, cognitive development of young children, educational attainment in school, and economic development of the society. It will also benefit from achievements in other sectors such as WASH, health, education, and social welfare. Improved nutrition security will contribute to building resilience to the current increasing risks – climate change, price increases, and natural disasters.

**Purpose of the regional approach to nutrition**

The purpose of the regional approach to nutrition is to guide UNICEF country offices in the EAP region in accelerating progress in reducing child undernutrition and preventing overnutrition; and to serve as an advocacy and technical resource for national governments about why nutrition is important for human, economic and social development, what needs to be done based on current context, and how to do it. Consideration is also given on the role UNICEF can play to facilitate the process to scale up nutrition interventions.

Within UNICEF, nutrition as a sector is now is recognized as a priority, with its own targets in the new UNICEF Five Year Strategic Plan (2014-2017). The regional approach to nutrition for the East Asia and Pacific region complements the new UNICEF global strategic document “UNICEF’s approach to scaling up nutrition programming for mothers and their children”, as well as other strategies developed by partner agencies and donors that address malnutrition. This regional approach and the UNICEF global approach are closely aligned, advocating a multi-sectoral approach and a focus on effective interventions, as reflected by the Lancet Nutrition series and other publications. Both Strategies are based on the original 1990 UNICEF conceptual framework of the causes of undernutrition, but reflect an updated iteration of the framework. This adds overnutrition, includes long-term and intergenerational consequences and shows how malnutrition itself contributes to the transmission of the underlying and basic causes such as inadequate human and financial capital.
The Strategies endorse the focus on the first 1,000 days as the “critical window of opportunity” for preventing malnutrition. Both Strategies have adopted the six global nutrition targets of the WHO Comprehensive Implementation Plan for Maternal, Infant, and Young Child Nutrition, endorsed by the World Health Assembly in 2012 and also with an end line of 2025.

The regional approach distinguishes from the global approach by articulating a set of packages of nutrition interventions for different contexts, and more specific guidance on how UNICEF can work with national governments to scale up effective nutrition interventions (in Volume 1); by providing a detailed analysis of the situation in the region (in Volume 2), as well as a detailed discussion of the causes and consequences of maternal and child under and overnutrition and the evidence base for the interventions proposed in the different packages (in Volume 3). It also proposes a somewhat different set of criteria for prioritizing interventions for overweight. The new regional approach also distinguishes from the previous regional nutrition strategy 2003 by going beyond the health sector and by taking into account the changing nutrition policy environment and emerging challenges such as climate change, urbanization, and the double burden of malnutrition in the context of a post-2015 world.

**Evidence of causes of malnutrition and effective interventions to address it**

The EAP regional approach to nutrition recognizes that maternal and child malnutrition result when the requirements of food, care, and health are not met. While it has long been understood that child malnutrition results when these conditions are not met post-partum, it is now understood that poor child growth can also be ‘pre-programmed’ through inadequate maternal health and nutrition, manifested in poor foetal development and low birth weight. Moreover, children who experience growth faltering in early life, but gain weight rapidly as older children are at particular risk of adult obesity and non-communicable diseases. The implications of this are (i) improving maternal nutrition is important for preventing infant and young child undernutrition, and (ii) preventing infant and young child growth faltering is a primary prevention strategy for reducing adult obesity and non-communicable diseases.

This regional approach also recognizes the particular importance of (i) inadequate sanitation and drinking water as a cause of undernutrition, by causing illness, in particular diarrhoea, environmental enteropathy (damage to the small intestine), and worm infestation; and (ii) the fact that adolescents are particularly vulnerable to undernutrition and that undernutrition and pregnancy in adolescents has significant negative effects for the mother and child. These important determinants of undernutrition are addressed in the two nutrition-sensitive packages of the regional approach as articulated below.

Contrary to the situation at the time of the first Lancet Nutrition Series (2008) when the international nutrition system was “fragmented and dysfunctional”; there is currently widespread consensus on the need to focus on the “1,000 day window of opportunity” from pre-conception to two years of age, agreement on effective nutrition specific interventions, and the importance of also addressing nutrition sensitive interventions in other sectors, although the evidence for the effectiveness of some of these is less well-established.
Packages of interventions to address malnutrition in EAPR

Based on this global consensus, this regional approach contains a series of seven contextualized ‘packages’ of nutrition interventions:

Figure 1: UNICEF EAP Regional Nutrition Strategy: Packages of Interventions
Three essential packages recommended for all countries:

• A **Core Package for Maternal and Child Undernutrition** for implementation by all countries. This package includes essential nutrition specific interventions for the prevention of maternal undernutrition, stunting and micronutrient deficiencies and a number of nutrition sensitive interventions with the most evidence. As the Core Package addresses intrauterine growth retardation and improves early child nutrition it will also serve to prevent further overweight and obesity.

• A package for **Nutrition in Emergencies** which should be implemented by all countries to ensure that all countries are prepared to respond effectively in an emergency and are working to build resilience to future shocks.

• A package for **Water and Sanitation** that should be implemented in all countries because of the importance of water and sanitation for nutrition. The package focuses on interventions that prevent faecal ingestion and contact which cause intestinal infections and undernutrition, in particular elimination of open defecation and hand washing.

Four packages for different national and sub-national contexts:

• A package to address **Child Wasting** that should be implemented in all countries or areas where the *prevalence of child wasting is greater than 10%*. The package essentially involves the establishment of community-based treatment of severe acute malnutrition and the integrated treatment of moderate acute malnutrition to prevent more children becoming severely malnourished.

• A package to address **Maternal and/or Child Overweight and Obesity** that should be implemented in all countries or areas where *maternal or child overweight is over 10%*. Implementation of this package assumes that interventions to prevent intrauterine growth restriction and improve infant and young child nutrition are already being implemented in the Core Package, given their importance in preventing later overweight. Interventions in this package focus on improving diet and increasing exercise through school and workplace activities and indirect interventions, including legislation, to make the environment less conducive to obesity.

• A **Teenage Pregnancy** package that should be implemented in all countries where *more than 10% of women 20-24 years old have given birth before the age of 18 years*. The package includes interventions to improve access of teenagers to services to prevent pregnancy, including access to education, and to create a more protective environment for teenage girls.

• A **Food Security** package for implementation in areas of inadequate food availability or access. It is anticipated that UNICEF’s role will be primarily one of advocacy, rather than direct implementation of the interventions in the package, which are focused on improving food availability, access and diversity.
Design and scale up of interventions in multiple sectors and UNICEF’s role

Unlike the previous regional strategy, this regional approach provides guidance to UNICEF offices on their role in designing, implementing and advocating for nutrition programmes. The guidance provided builds upon global experience and guidance for the development of sustainable, multi-sectorial nutrition strategies and programmes at scale and across the life course. It builds in particular on processes described by the WHO Comprehensive Implementation Plan and the Scaling Up Nutrition (SUN) Framework, but is also aligned with the strategic objectives of UNICEF’s global approach, which are concerned with situation analysis, advocacy, scaling up of interventions, capacity building, creation of an enabling environment and community-centred approach, and effective monitoring and evaluation.

Thus guidance is provided on how UNICEF can support the following processes in countries: advocacy and political mobilization; stocktaking including policy and programme assessment, bottleneck and drivers assessment, and nutrition capacity assessment; and preparing for scale up, including development and costing of a national nutrition plan. How nutrition interventions should be scaled up, including how nutrition interventions should be integrated into the health system at facility, outreach and community level is discussed in detail. UNICEF’s role in supporting the implementation of nutrition sensitive interventions from each of the packages is discussed by sector. In particular, guidance is provided on when UNICEF should provide direct support to the government for implementation versus advocacy and coordination for interventions that are implemented by the government with the support and facilitation of another agency.

<table>
<thead>
<tr>
<th>Package</th>
<th>Threshold</th>
<th>Possible countries</th>
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<tbody>
<tr>
<td>Child Wasting</td>
<td>Countries or areas where wasting rates (&lt;=-2SD) &gt;10%</td>
<td>Cambodia, Indonesia, Timor-Leste and Solomon Islands. If provincial/district data available for other countries, in those provinces/districts where child wasting &gt;10%.</td>
</tr>
<tr>
<td>Package for Child and/or Maternal Overweight and Obesity</td>
<td>Countries or areas where child overweight is &gt;10% and maternal overweight &gt;30%</td>
<td>Mongolia and Indonesia: child overweight &gt;10%. - Mongolia, China, Fiji, Kiribati, Malaysia, Nauru, Solomon Islands, Thailand, Tuvalu, and Vanuatu: women's overweight &gt;30%</td>
</tr>
<tr>
<td>Package for Teenage Pregnancy</td>
<td>Countries or areas where &gt;10% of women 20-24 years old have given birth before age 18</td>
<td>Indonesia, Lao PDR, Papua New Guinea, Solomon Islands, Marshall Islands and Nauru: ≥10% of women aged 20-24 reporting giving birth before the age of 18</td>
</tr>
<tr>
<td>Package for Food Insecurity</td>
<td>Areas of inadequate food availability or access.</td>
<td>Accepted national and sub-national indicators for food security should be used. Based on FAO data on food availability at a national level, countries where this Package may be relevant are Timor-Leste, Democratic People’s Republic of Korea, Lao PDR, Cambodia and Mongolia.</td>
</tr>
</tbody>
</table>

Figure 2: Possible countries and suggested thresholds for supporting the proposed "specific context" packages
A need for capacity building in public nutrition is highlighted, which can be addressed through training of in-service staff or the development of nutrition professionals through pre-service training; the latter being a more long-term and sustainable option.

It is also important for UNICEF staff to have adequate nutrition capacity. This regional approach advocates that all UNICEF Country Programme team members should have a minimum level of nutrition fluency and lead technical people on nutrition should have adequate skills to enable them to exercise the high-level political advocacy and technical leadership currently required. Finally, guidance is provided on monitoring and evaluation of nutrition programmes, recognizing that this is often a weak component. This guidance builds upon the principles of Monitoring for Results for Equity Systems (MoRES) and applies them specifically to nutrition.

This regional approach to nutrition is intended to provide UNICEF country offices, and the national governments they support, with the necessary guidance and tools to take advantage of the current political interest, consensus on what to do, and commitment to act. The packages of interventions aim to provide a balance between a long list of ‘essential interventions’ and advice about the multi-sectorial causality of malnutrition. The final chapter is the most comprehensive and specific guidance to date on how to plan and implement national nutrition programmes. It is hoped that this regional approach will become a valuable resource for country offices in the region and contribute to accelerated action to prevent and reduce the burden of malnutrition amongst the women and children of the East Asia and Pacific region.

The companion volumes provide supportive information as a basis for the strategic approach, which can be used as reference material, as a baseline, and as advocacy material: Volume 2 contains a detailed analysis of the situation of nutrition and the determinants of nutrition status, as well as the status of nutrition programmes based on available information at the time of writing of the document in August 2014. Volume 3 contains a detailed overview of the current state of evidence for the determinants and consequences of malnutrition and effective, proven interventions. The evidence base for each proposed package of the regional approach is outlined. The full bibliography for all three volumes is contained in Volume 1, as are the abbreviations and glossary.
PURPOSE OF A REGIONAL APPROACH TO NUTRITION AND CONTEXT
Purpose of the regional approach

Over the past few years, there has been increased interest and prioritization of nutrition following scientific evidence generated by the Lancet Nutrition Series (2008 and 2013) the economic rational to invest in nutrition highlighted by the Copenhagen Consensus (2008 and 2012) as well as the accumulation of programmatic experience. The establishment of the Scaling Up Nutrition movement has also contributed to increasing global and national commitment, stressing the importance of a multi-faceted response and the involvement of several sectors collaborating to reduce stunting and other forms of malnutrition.

In the East Asia and Pacific region, despite economic growth, and achievements in health and nutrition indicators, maternal and child malnutrition rates remain high. Stunting rates are above 30% in several countries, disparities are even increasing in some countries, and rates of overweight and obesity are on the rise.

Five of the 20 countries contributing to the overall burden of undernutrition are in the EAP region. Unless significant investments are made to improve nutrition, the social, developmental, and economic gains achieved over the past years may well be wasted. It is crucial to act now to implement key nutrition actions as additional threats such as climate change, natural disasters, and rising food prices can only exacerbate existing nutrition problems.

Political, economic, and social contexts have changed since the last regional nutrition strategy was developed in 2003. Globally, there has been widespread recognition that nutrition is essential for social and economic development and better alignments among development agencies, donors and governments to invest in nutrition. The recent Nutrition for Growth Summit in London is a concrete example where a set of individual commitments to beat hunger and improve nutrition was made including a $4.15 billion financial investment.

5 http://scalingupnutrition.org/
6 EAPRO. Strategy to reduce maternal and child undernutrition. EAPRO 2003 http://www.unicef.org/eapro/activities_3689.html
7 http://nutrition4growth.org/
Within UNICEF, nutrition as a sector is now recognized as a priority, with its own targets in the new UNICEF Five Year Strategic Plan (2014-2017). As such, UNICEF is currently developing a new global approach to nutrition entitled “UNICEF’s Approach to Scaling Up Nutrition Programming for Mothers and their Children” to better address malnutrition for future generations in a changing world. The document aims to guide UNICEF’s efforts in support of country-led action to improve maternal and child nutrition. It aims to make UNICEF’s ongoing work in nutrition more strategic, responsive and contextually relevant, while also being efficient and effective and working across sectors and with partners. Furthermore, it sets out how UNICEF will operate differently by detailing six operational approaches that characterize a more systematic, robust approach to results-based nutrition programming, with a renewed focus on equity.

The approach to nutrition for the East Asia and Pacific (EAP) region seeks to complement the UNICEF global approach and other strategies at regional and national levels addressing malnutrition. Both this regional approach and the global approach are closely aligned, advocating a multi-sectoral approach and a focus on effective interventions. Both are based on the original conceptual framework of the causes of malnutrition of UNICEF’s first Nutrition Strategy (1990) and endorse the focus on the first 1,000 days as the “critical window of opportunity.” Both strategies have adopted the global nutrition targets of the WHO Comprehensive Implementation Plan (CIP) on maternal, infant and young child nutrition.

The regional approach distinguishes from the global approach by providing a more detailed analysis of the situation in the region (in Volume 2), more detailed discussion of the causes and consequences of maternal and child under and over nutrition (in Volume 3), the articulation of packages of nutrition interventions for different contexts, and more specific guidance on how UNICEF can work with national governments to scale up effective nutrition interventions (in this document, Volume 1). The new regional approach to nutrition also distinguishes from the previous regional nutrition strategy 2003 by going beyond the health sector and by taking into account the changing policy environment and emerging challenges such as climate change, urbanization, and the double burden of malnutrition in the context of a post-2015 world.

The purpose of the regional approach is therefore to guide UNICEF country offices in the EAP region in accelerating progress in reducing child undernutrition and preventing overnutrition; and to serve as an advocacy and technical resource for national governments about why nutrition is important for human, economic and social development, what needs to be done based on current context, and how to do it. Consideration is also given on the role UNICEF can play to facilitate the process to scale up nutrition interventions. The approach was written by staff and consultants of EAPRO and has benefit from inputs provided by country offices in the region and headquarters staff.

This approach has been developed taking into account lessons learnt from UNICEF’s past experiences in nutrition programming and emerging issues and opportunities, globally and regionally. It builds upon UNICEF’s organization-wide strengthened focus on improving equity, reducing gender disparities, and building resilience. The importance of these global and regional issues and opportunities are highlighted below.

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Global nutrition policy context

A joint review of the nutrition work of the World Bank and UNICEF at the turn of the millennium revealed that nutrition was largely sidelined in national poverty reduction agendas, and the small investment in nutrition programmes was often poorly targeted, i.e. outside of the 1,000 days window. Furthermore most low and middle-income countries (LMICS) commonly had young child stunting rates of 30-50%, which were either improving very slowly or not improving at all. Meanwhile a review of the UNICEF nutrition portfolio over the two decades prior to the turn of the millennium revealed that UNICEF country programme support to programmes tackling protein energy malnutrition (PEM), especially through community-based programmes, declined post 1990. During the nineties, programme funding largely went to support more ‘top-down’ micronutrient programmes especially for vitamin A capsules and salt iodization, mainly in trying to achieve Mid-Decade and then World Summit for Children goals by 2000. This contrasted with the organization’s first Nutrition Strategy (approved by UNICEF’s Executive Board in 1990), which introduced the conceptual framework of the causes of malnutrition and proposed its use to guide an assessment-analysis-action process in order to develop local specific actions through ‘bottom-up’ community-based programmes to improve nutrition.

In 2006, UNICEF updated its strategy to make it an integrated Health and Nutrition strategy. The new strategy reflected an important shift from a ‘project-approach’ to helping to create enabling institutional frameworks, and evidence-based analysis, for policy decision making in order to leverage large scale acceleration of effective coverage of proven interventions. This contributed to a significant change in UNICEF’s portfolio and programming and through the years, UNICEF has been maintaining a sound track record with various programmes including supplementation and fortification programmes, community-based management of acute malnutrition, and infant and young child feeding programmes. Over the years, UNICEF has positioned itself as a global leader on nutrition (including the lead agency for the Global Nutrition Cluster) and as a key player on international wide-scale nutrition initiatives and movements. UNICEF has strengthened its human resource capacity in terms of absolute numbers, distribution, and skill building efforts across all three levels of the organization. In the last five years, nutrition specialist posts at level 5 were created in large priority countries and several other posts were created in many other country offices. UNICEF is the agency with the largest number of nutritionists, where the total number of UNICEF nutrition staff increased from 171 in 2006 to 374 in 2011 including 150 staff at levels 3-5. UNICEF also increased its investment in nutrition, from an annual expenditure of US$100 million in 2006 to over US$400 million in 2013.

Also in 2006, the World Bank developed a new nutrition strategy and made the case that development partners and developing countries must increase investment in nutrition.

Programmes and that nutrition interventions are essential for speeding poverty reduction, have high benefit-cost ratios, and can improve nutrition much faster than reliance on economic growth alone. In 2010, the World Bank published its analysis of what it would cost to scale up selected high-impact nutrition interventions. It estimated that an additional US$10.3 billion a year is required from public resources to successfully mount an attack against undernutrition in the 36 countries with the highest burden of undernutrition (home to 90% of the stunted children), benefitting more than 360 million children—and preventing more than 1.1 million child deaths. The World Bank reports have, to some extent, contributed to the development of the SUN movement.

Fortunately, the fragmented global nutrition community depicted by the Lancet Nutrition Series 2008 as lacking cohesion and leadership has made way for a more unified international nutrition community who has been successfully advocating for improving nutrition at the global level as well as in countries in the most recent years, thanks in part to the SUN movement. The SUN movement has developed a Framework for Action, which has been endorsed by over a hundred entities from national governments, the UN system, civil society organizations, development agencies, academia, philanthropic bodies, and the private sector. Subsequently a SUN Road Map was elaborated and later revised, which anticipates that in SUN countries there would be multi-stakeholder platforms, with improved sharing of experiences, better support for monitoring of progress, better alignment of assistance from development partners, and stronger governance and coordination of intergovernmental action. As of February 2014, 47 countries had joined the SUN movement, 29 had established high level coordination mechanisms, and 20 had developed updated and costed nutrition plans. At country level in 12 countries, the SUN movement is supported by REACH, which operates as a facilitating mechanism in the coordination of UN and other partners’ support to national nutrition scale-up plans in 12 countries. In addition, over 70 NGOs and CSOs have also aligned themselves under the ‘1,000 days’ umbrella in support of the SUN movement.

The Director-General of WHO was asked to develop a CIP on infant and young child nutrition (IYCN) as a critical component of a global multi-sectoral nutrition framework in May 2010 at the 63rd World Health Assembly (WHA). At the 65th WHA in May 2012, the final draft of the CIP, now expanded to address also maternal nutrition, was endorsed and member states urged to put the CIP into practice. The background papers have since been published in the form of a global nutrition policy review, and a two-part programme guideline. Part one of the guideline has the recommendations, rationale, and evidence for the essential nutrition actions, and part two concerns the effectiveness of large-scale nutrition programmes.

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Global policy and programme guidance on nutrition and food security are also provided by the Food and Agriculture Organization (FAO). In 2012 the Committee on Food Security (CFS) of FAO approved a Global Strategic Framework for Food Security and Nutrition.27 The objective of the Framework is to provide a single reference to core recommendations for food security and nutrition strategies, policies and actions that were validated by the wide ownership, participation and consultation afforded by the CFS. The CFS has also urged Member States to design and put in place, or strengthen, comprehensive, nationally owned, context-sensitive social protection systems for food security and nutrition.

Another Rome-based food agency, the World Food Programme, has recently had a nutrition policy approved by its Executive Board28 which has authorized its operation in non-emergency settings, i.e. working in normal development programmes for the first time. The main focus of this work is on the provision of nutrient-dense foods for mothers and children under two, in order to recuperate and prevent the occurrence of undernutrition, in a collaborative effort supported by food industry partners. WFP is also developing a regional nutrition strategy for its pan-Asia region.

Many other donors and development partners have now developed nutrition strategies with a focus on stunting reduction. The European Union, for example, has stepped up its efforts to fight against world hunger, food insecurity and malnutrition with a new policy framework for addressing undernutrition in external assistance29 which aims to help partner countries reduce stunting in children less than five years of age by at least 10% by 2025.30 The United Kingdom Government has also developed a new nutrition strategy31 and committed to scaling up its nutrition efforts.32 USAID is has also recently issued its nutrition strategy (2014-25) which is aligned with the global nutrition targets and with an emphasis on multi-sectoral nutrition programming. Closer to this region, Australia is also in the process of developing its nutrition strategy.

Several foundations have recently been playing a key role in nutrition. The Bill and Melinda Gates Foundation, is increasingly investing and putting more efforts for the delivery of proven interventions and developing better tools and strategies for providing pregnant women and young children with the foods and nutrients they need. The Children's Investment Fund Foundation (CIFF) has also increased its level of investment and now includes alleviation of hunger and nutrition in its portfolio.

More recently, world leaders including SUN countries came together to sign a global compact that will prevent at least 20 million children from being stunted and save at least 1.7 million lives by 2020. The Global Nutrition for Growth Compact33 was endorsed by 90 stakeholders, including development partners, businesses, and scientific and civil society groups. A set of individual commitments was made including a US$4.15 billion financial commitment.

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Regional context

While the global policy context is clearly affecting policies at the regional level, it is important to highlight changes or opportunities that are specific to the region. As discussed in Chapter 3 significant achievements have been made in the region, particularly in relation to economic development, improved access to education, coverage of health interventions and water and sanitation. These advances have benefited the nutritional status of children and women. In addition, the coverage of some nutrition interventions, such as vitamin A supplementation or the iodine fortification of salt, has directly contributed to improved nutrition. Overall however, the implementation of nutrition interventions has lagged behind those of other sectors and the incidence of malnutrition remains high in the region, higher than might be expected compared to other social indicators. However, there are significant opportunities to build upon the achievements to date, such as by strengthening the implementation of nutrition interventions in the health sector, and addressing nutrition through other sectors. Recently, UNICEF and the Association of the South East Asian Nations (ASEAN) developed a Framework for Cooperation, which includes priorities of work concerning children. As such, UNICEF is working with the ASEAN Task Force on Maternal and Child Health (ATFMCH) to ensure that the contribution of nutrition to improve maternal, neonatal and child health which is included as a priority area in the ATFMCH workplan. Globally, nutrition is benefitting from increased investments which translates into increased resources for many countries to fight malnutrition, in the EAP region, external funding has not been as important as in the South Asia and Africa regions, largely because of an overall better economic situation and because several countries are in the middle-income category. Advocacy to mobilize national resources and national commitment is therefore critical to improve nutrition in the region. Of the 53 countries that have joined the SUN Movement as of July 2014, six are from the EAP region. It is expected that a few more countries may join.

As indicated above, the world is changing and new challenges and issues are emerging. The following are particularly relevant and critical for the EAP region.
Emerging issues and opportunities

**Urbanization** – Nearly half (46%) of the population of Asia and the Pacific now lives in urban areas and by 2020, the urban population is estimated to reach 50%.\(^{34}\) In the region, the highest growth rates are found in the poorest and least urbanized countries. While urbanization often means more cost-effective delivery of critical services such as transport, health and education, it also brings considerable challenges through the pressures and demands of rapid rates of growth, or through poorly managed urbanization, such as inadequate access to water and sanitation, spread of communicable diseases, and shortages of adequate and affordable shelter, all of which can exacerbate nutrition problems.

**Dietary changes** – In part due to the food crisis, food consumption patterns have shifted the balance towards low-quality food. In addition, in emerging economies there is an increase in the consumption of animal foods, fats, sugar, processed foods and fast foods, and such foods tend to be more affordable and available to the poor. This, linked with less physical activity, leads to an increase number of obese and overweight people. Treating obesity and other chronic diseases, such as diabetes, which are also increasing in developing countries, will add tremendous costs to already overburden health care budgets. Greater and continuous efforts to promote healthy eating, improve nutritional literacy and increase the availability and affordability of diverse foods are needed.

**Increased food prices** – The 2007-8 crisis and price rises had a clear negative impact on the EAP population, with poor households cutting on the quantity and quality of foods being consumed. It is expected that food prices will remain high in the years to come. With food accounting for 50 to 70% of total household expenditures in South and South East Asia\(^{35}\) many households, and particularly women and young children, are therefore at increased risk of undernutrition if, for example, social transfer programmes are not put in place to mitigate the risks.

**Climate change** – As highlighted in the global UNICEF approach, the world is experiencing climate change and variability and an increased severity and frequency of natural disasters. Both floods and droughts are and will continue to occur more frequently.\(^{36}\) These changes are likely to have the greatest impact in many low resource regions’ agriculture output, reducing yields of crops, soil fertility, and forest and animal productivity, which may lower income, resilience and subsequently, reduced access to sufficient, nutrient dense foods and impaired nutritional status of communities\(^{37}\). In the EAP region, there is almost no room for further expansion of arable land, and, at the same time natural resources are diminishing and the environment is being damaged. FAO is advocating that food production must work in harmony with the ecosystem rather than attempting to transform or master it.\(^{38}\)

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\(^{34}\) http://www.unescap.org/sites/default/files/A.2-Urbanization.pdf


impact of climate change needs to be factored into nutritional planning and programming.

**Increased humanitarian crisis** – Natural disasters, protracted economic and food price crises, and conflicts can threaten communities and often reveal their vulnerability to disruptions of their livelihoods and accompanying increases in acute malnutrition and micronutrient deficiencies. Humanitarian crises are associated with food shortages, lack of safe drinking water, inadequate, disrupted health care systems, overcrowding, poor hygiene practices, and an abandonment of breastfeeding when unsolicited donations of breastmilk substitutes are permitted and distributed, resulting in a rapid increase in acute malnutrition and exacerbate pre-existing nutritional deficits in the population in these vulnerable areas. In combination with increased infections like measles, diarrhoea, and respiratory infections, undernutrition and lack of breastfeeding also cause highly increased rates of child mortality in emergencies.

**Inequity and gender disparity** – the EAP region encompasses enormous variety in terms of size of country size, cultures and religions, and levels of development. It also encompasses great levels of inequity as discussed in Chapter 3. Differences are significant between countries but also within countries between rural and urban populations and different economic quintiles. In many countries, improving national averages will require addressing the poor and the worst off. Encouragingly gender disparity is less evident; female nutritional status is usual equal to that of boys, as is educational attainment. For this reason, data presented in Chapter 3 has not been disaggregated by sex. Nevertheless women in the EAP region still suffer from discrimination, reduced opportunities, greater levels of violence, and less freedom of choice. Significant evidence exists that improving the status of women and their autonomy in decision-making or access to resources improves the nutrition of their children.\(^3^9\) Similarly, interventions that aim to improve nutritional status through agriculture are more effective if they empower women. Thus reduction of inequity and gender disparity can be expected to accelerate improvements in nutrition.

**Inadequate resilience** – Natural and man-made disasters occur frequently in the EAP region. The foremost nutrition priority in such emergencies and crises has been to prevent immediate death and to treat acute malnutrition in the affected populations while assuring coverage of basic needs and prevention of further deterioration. However, responding to humanitarian crises needs to be a balance and continuum between short-term responses intended to prevent and reduce immediate morbidity and mortality, and longer-term solutions that helps build the resilience of communities by protecting and supporting people’s long-term health, nutrition and overall livelihoods. Improving the nutritional status of children and mothers in fragile states and emergency contexts is essential to advance community resilience. At the same time, community and system resilience must improve to ensure sustainable reduction of undernutrition in those states. This goes beyond humanitarian and emergency situations but impacts overall development.

It is hoped that with this regional approach to nutrition, UNICEF country offices, governments and partners will feel equipped to prevent and reduce the burden of malnutrition among the women and children of the EAP region. The core of the regional approach is articulated around packages of interventions to be implemented based on current context and more specifically how to plan and implement national nutrition programmes.

The companion volumes provide supportive information as a basis for the strategic approach, which can be used as reference material, as a baseline, and as advocacy material. Volume 2 contains a detailed analysis of the situation of nutrition and the determinants of nutrition status, as well as the status of nutrition programmes based on available information at the time of writing of the document in August 2014. Volume 3 contains a detailed overview of the current state of evidence for the determinants and consequences of malnutrition and effective, proven interventions. The evidence base for each proposed package of the regional approach is outlined.
GLOBAL GOALS FOR NUTRITION AND CONSENSUS ON APPROACH TO ACHIEVING THEM
Global nutrition goals and regional status and prospects

Data presented in Volume 2 on the situation in the region demonstrates that while the nutrition situation in the region has improved, poor nutrition remains an important problem. Moreover several forms of malnutrition need to be tackled in the region including high levels of stunting and micronutrient deficiencies, in particular iron deficiency and anaemia. In some countries wasting is also a problem and in others the double burden of both under and over nutrition in either women or children needs to be addressed in an accelerated way. Data presented also indicates that many proven interventions are still not being implemented. This regional approach therefore aims to present the justification and evidence for significantly accelerated implementation of proven interventions that will reduce all forms of maternal and child malnutrition, plus how to scale up proven nutrition specific and sensitive interventions.

The Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition which was developed by WHO in consultation with Member States, and endorsed by the World Health Assembly in May 2012, has established the following six global targets for maternal, infant and young child nutrition. These global targets are intended to underpin Target 1C of the Millennium Development Goal 1 and take into account reduction rates achieved so far, as detailed in the Comprehensive Implementation Plan (CIP). The targets are intended to be achieved in the next 15 years (baseline used for the CIP is 2010).

These goals will also apply to the post 2015 agenda of the Sustainable Development Goals.

Proposed SDG 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture includes the following sub-goal on nutrition: “by 2030 end all forms of malnutrition, including achieving by 2025 the internationally agreed targets on stunting and wasting in children under five years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons”.

40 http://www.who.int/nutrition/events/2012_B130_10_draftplan_en.pdf
Globally this would imply an annual relative rate of reduction of 3.9%, which is considerably more ambitious than the 1.8% per year achieved on average by 110 countries between 1995 and 2010. Countries with stunting rates over 30% achieved a faster reduction rate of 2.6%.

Five countries in the region have achieved national reductions of more than 1 percentage point per year, two of them over 2%, and Indonesia has achieved a reduction of just under 1% - 0.83%. China, which contributed the largest reduction in numbers of stunted children, only reduced its stunting rate at 0.75% per year. Brazil, one of the “success stories” of stunting reduction, achieved approximately 1 percentage point per year reduction between 1975 and 2006. (See Brazil case study in Volume 3).

Substantial acceleration of multi-sectoral interventions is needed if this target is to be achieved in the region.

2. Global target 2: 50% reduction of anaemia in women of reproductive age by 2025

The relative reduction of 50% in the numbers of anaemic women implies an annual rate of reduction of 5.3%. Several countries have demonstrated a reduction in anaemia among non-pregnant women of between 4-8%, including China from 50% to 19% between 1981 and 2002; Vietnam from 40% to 24% between 1987-2001; Cambodia from 56% to 44% between 2000-2006.

This target is considered achievable.

The CIP only has a target for anaemia reduction in reproductive age women, and a target for reduction of anaemia in children under 5 is also considered important for countries as anaemia in young children is felt to be an unaddressed area in the region although interventions to reduce it exist and are feasible for implementation at scale. Iron and folic acid supplements for pregnant women and MNPs for children under two years of age have significantly reduced the relative risk for anaemia by 0.5043 and 0.6644 respectively when implemented correctly and at scale. Note: Although the primary impact of MNPs will be on children under 2, rather than under 5, the goal applies to children under 5 as most surveys measure anaemia in this age group.

Globally, an annual rate of reduction of 3.9% would be needed to achieve this target. Examples of country achievements range from 1-12%. Higher reduction rates have been observed in countries with a higher proportion of low birth weight (LBW) accounted for by intrauterine growth restriction which is more amenable to reduction than pre-term birth.

Several counties in the EAP region already have relatively low prevalence of LBW. The focus of work to reduce LBW should therefore...
be concentrated in countries with prevalence over 10%. These are Papua New Guinea, Malaysia, Cambodia, Timor-Leste, Solomon Islands, Lao PDR, Marshall Islands, Micronesia, the Philippines, and Nauru. A comprehensive package of interventions to reduce LBW should be implemented including prevention of teenage pregnancy, birth spacing, healthcare and rest during pregnancy and improving the nutritional status of reproductive age and pregnant women, including iron and folate or multi-micronutrient supplementation and balanced energy and protein food supplements where necessary.

4. Global target: No increase in childhood overweight by 2025

The global average prevalence of overweight is 6.7% and would increase to 10.8% in 2015 if current trends continue. In EAPR the average prevalence is 5%. However, if action is not taken urgently, this is likely to rise rapidly. Some countries already have a prevalence substantially higher than the global average, for example Indonesia at 12% and Mongolia at 11%. It will be important to focus on addressing overweight in countries which still have a high burden of stunting.

5. Global target 5: Increase exclusive breastfeeding rates in the first six months up to at least 50% by 2025

In EAPR achieving the CIP target would require an increase from the current level of 30% by 20 percentage points to reach 50% by 2025, a relative annual increase of 1.33%. Although the global rate of exclusive breastfeeding has not increased significantly since the early 1990s, individual countries have demonstrated that rapid and substantial increases are possible, for example Cambodia, from 12% in 2000 to 74% in 2010 and Timor-Leste from 31% in 2003 to 66% in 2013.

6. Global target 6: Reducing and maintaining childhood wasting to less than 5%

While the average rate of wasting in EAPR is already less than the global target at 4%, wasting rates are in excess of 5% in 11 EAPR countries. Until recently, Timor-Leste had the highest wasting prevalence in the region (19% in 2009), but has reduced its wasting prevalence to 12% in 2013. Wasting reduction will imply an acceleration of preventive actions in multiple sectors, targeting areas and groups with the highest prevalence and burden, a massive scale-up of outpatient treatment of severe acute malnutrition (SAM) and efforts to target children with moderate acute malnutrition (MAM) through optimal use of locally available foods and specially formulated fortified foods where necessary.

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41 SOWC 2014 (excluding China)
42 SOWC 2014
43 Vanuatu, Lao PDR, Thailand, Viet Nam, the Philippines, Myanmar, Cambodia, Timor-Leste, Solomon Islands, Malaysia and Indonesia.
Volume 3 summarizes the current evidence on what works. The two Lancet Nutrition Series provided an evidenced-based list of “nutrition-specific” interventions and emphasized the need to achieve implementation of these interventions at scale (90% or above). However, they have also highlighted the importance of complementing these nutrition-specific interventions with interventions in other sectors that address the “underlying determinants of undernutrition” in order to accelerate reduction in maternal and child under and overnutrition. Such interventions are referred to as “nutrition sensitive interventions.”

Scaling Up Nutrition Movement

The Scaling Up Nutrition (SUN) movement’s recently released Strategy and revised Road Map refer to a “Theory of Change” that has two components:

1. Implementing specific nutrition interventions of proven efficacy, equitability and with high coverage;

2. Pursuing resilience-centred policies in key sectors that have an impact on undernutrition.

The nutrition-specific interventions are largely implemented through the health sector while the nutrition-sensitive interventions of the second component will need to be implemented through other “key” public sectors, such as agriculture, education, water and sanitation and social protection, as well as the private sector. Thus implementation to scale will require multi-sectoral collaboration and the implementation of ‘other sector’ interventions with a ‘nutrition objective’. The SUN movement has adopted the Lancet Nutrition Series 2008 list of nutrition specific interventions with two additions – multiple micronutrient powders (home fortification of complementary foods) and prevention/treatment of MAM were added based on evidence of effectiveness that became available after the Lancet Nutrition Series. Justification is also made for a wider application of iron fortification beyond “specific situational contexts” and community management of SAM in addition to facility-based management.

49 Prevention and treatment of moderate malnutrition consists of behaviour change counselling, and, in some circumstances, such as areas of food insecurity, provision of appropriate, additional foods, such as lipid-based complementary foods. NB. “Management of MAM” was one of the ten interventions modelled for scaling up by the Lancet Nutrition Series 2013.
WHO Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition

The WHO-initiated, Comprehensive Implementation Plan (CIP) on Maternal, Infant and Young Child Nutrition, was endorsed in 2012 by the World Health Assembly. The CIP requires “all effective health interventions with an impact on nutrition” to be in national nutrition plans. Effective direct nutrition interventions and health interventions that have an impact on nutrition and that can be delivered by the health system are summarized in a background paper to the plan and are reported in the WHO e-Library of Evidence for Nutrition Actions. The CIP-endorsed list includes all interventions advocated by the Lancet 2008 plus some additional interventions, primarily for implementation in specialized circumstances. A list of “Non-health interventions with an impact on nutrition” includes interventions under agriculture, food manufacturing, water and sanitation, education, labour policies, social protection and urban planning sectors. Evidence on the effectiveness of nutrition specific and sensitive interventions is compiled by WHO in its electronic Library of Evidence for Nutrition Actions (eLENA). eLENA is a repository for current and forthcoming evidence-informed recommendations and other scientific information and tools for implementing and/or expanding nutrition actions in countries. The WHO list of effective nutrition specific and sensitive interventions is therefore likely to evolve as new guidelines are developed based on new evidence and analysis. See Annex 3 in Volume 3 for comparison of the list of nutrition-specific interventions by the Lancet Nutrition Series 2008 and 2013, SUN and WHO CIP.

UNICEF’s Approach to Scaling Up Nutrition for Mothers and their Children (2014)

The new global approach currently being developed by UNICEF also advocates the scaling up of nutrition specific and sensitive interventions. The document focuses in particular on the following nutrition specific interventions: micronutrient fortification and supplementation, infant, and young child feeding, prevention, and treatment of SAM and nutrition support for those with infectious diseases. Nutrition sensitive approaches that are emphasized are those that improve public health, social protection, dietary approaches, early childhood development, water, sanitation and hygiene (WASH) and childhood overweight and obesity. Based on this approach, a list of UNICEF actions and target populations is shown in the below figure (see Figure 3).

http://www.who.int/nutrition/topics/WHA65_6_annex2_en.pdf
http://www.who.int/nutrition/publications/infantfeeding/essential_nutrition_actions/en/
http://www.who.int/elena/about/en/

In 2007, WHO developed new procedures for developing technical guidelines. These new procedures ensure that WHO guidelines are produced in ways consistent with best practice, emphasizing the appropriate use of evidence. Under these procedures the WHO Nutrition Guidance Expert Advisory Group (NuGAG) has been formed. The NuGAG has supported WHO in developing updated guidance on a variety of subjects including vitamin A and iron supplementation, home fortification with multiple micronutrient powers and fortification of wheat and maize flour and salt.
**Figure 3: Global UNICEF framework to achieve nutrition security**

**Goal**

To markedly improve nutrition security for all women and children by creating an enabling environment that results in scaled and sustainable nutrition actions.

**UNICEF Actions**

- Protect, promote and support appropriate feeding
- Reduce micronutrient deficiencies
- Prevent and treat SAM
- Promote improved nutrition for women, girls, pregnant and lactating mothers
- Improve nutritional care for HIV/AIDS patients
- Increase synergies with WASH, Health, ECD and Social Protection
- Promote strengthened linkages with agriculture
- Promote linkages with health to prevent childhood obesity

**Target Populations**

- Adolescent Girls
- Women of RA
- Children Under Two
- Pregnant and Lactating Women

**Nutrition Specific Programmes and Actions**

- Infant and Young Child Feeding
- Severe Acute Malnutrition
- Micronutrient Fortification and Supplementation

**Nutrition Sensitive Sectors & Approaches**

- Health, Social Protection, Education, WASH, Poverty Reduction, Governance, Women's Rights, Gender Equality, Early Childhood Development, Childs Rights, Agriculture

Ref: UNICEF’s Approach to Scaling up Nutrition Programmes 2014 (draft).
3 DESIGN OF THE UNICEF EAP REGIONAL APPROACH TO NUTRITION
The objective of the UNICEF EAPR regional approach to nutrition is to reduce maternal and child malnutrition in the region. As such it aims to reduce both maternal and child under and overnutrition. As discussed, it will include both nutrition sensitive and nutrition specific interventions, with a timeline of 2014 to 2025. As this regional approach has been written primarily for UNICEF, to guide UNICEF staff in supporting national governments to improve national nutrition programmes and to guide prioritization of UNICEF focus and funding for nutrition, the interventions emphasized are those which fall broadly within UNICEF’s mandate and for which UNICEF’s experience offers comparative advantage.

A key lesson from global nutrition programmes is that they must be comprehensive and holistic and must simultaneously address the multiple causes of maternal and child nutrition. An additional lesson learnt is that guidance is needed on what specific interventions should be implemented where and when.

A weakness of past UNICEF Nutrition strategies is that they advocated a wide range of general actions with little guidance on specific interventions. This regional approach aims to provide guidance on what interventions to implement and to only advocate interventions with known effectiveness (or those that appear likely to be effective with follow up evaluation in order to demonstrate their effectiveness).

It is also recognized that the EAP region is made up of countries with significant disparity in terms of size, economic development, and health and nutritional status. It is also one of the most hazard prone regions in the world, which exacerbates disparities and the nutritional status of women and children. Thus it is clear that a ‘one-size fits all’ approach will not be suitable. The UNICEF EAP regional approach is therefore made up of modules or ‘packages of interventions’. Countries should determine which packages to implement, based upon their national or sub-national situation.
The following packages of interventions have been developed, each to address a different aspect or cause of maternal or child malnutrition.

**Figure 4: UNICEF EAP Regional Nutrition Strategy: Packages of Interventions**

<table>
<thead>
<tr>
<th>Essential packages for implementation by all countries</th>
<th>Packages for implementation based on specific context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Package for Maternal and Child Malnutrition</td>
<td>Package for Child Wasting</td>
</tr>
<tr>
<td>Package for Nutrition in Emergencies</td>
<td>Package for Child and/or Maternal Overweight and Obesity</td>
</tr>
<tr>
<td>Water and Sanitation Package</td>
<td>Package for Teenage Pregnancy</td>
</tr>
<tr>
<td></td>
<td>Package for Food Insecurity</td>
</tr>
</tbody>
</table>

Three packages, two on nutrition, and one on water and sanitation, are felt to be necessary in all countries. Four ‘optional’ packages should be implemented based on the specific situational context in the country or regions of a country. Prevalence cut-off points are suggested below for consideration of each package. These cut-off points are based on global cut-off points or global and regional averages. Countries for which these packages might apply have been indicated for each package, but other countries with areas or population groups where prevalence exceeds the indicated cut-offs may also be targeted for implementation of the interventions of that package.
If a package is selected for implementation, all the interventions in the package should be implemented as they are designed to complement and reinforce each other. **The interventions should be implemented, at scale, on a national or sub-national basis, amongst affected communities.** The evidence base and implementation guidance for all interventions are given in Volume 3.

<table>
<thead>
<tr>
<th>Package</th>
<th>Threshold</th>
<th>Possible countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Wasting</td>
<td>Countries or areas where wasting rates ($&lt;-2SD)$ &gt;10%</td>
<td>Cambodia, Indonesia, Timor Leste and Solomon Islands. If provincial/district data available for other countries, in those provinces/districts where child wasting &gt;10%.</td>
</tr>
<tr>
<td>Package for Child and/or Maternal Overweight and Obesity</td>
<td>Countries or areas where child overweight is &gt;10% and maternal overweight &gt;30%</td>
<td>Mongolia and Indonesia: child overweight &gt;10%; Mongolia, China, Fiji, Kiribati, Malaysia, Nauru, Solomon Islands, Thailand, Tuvalu, and Vanuatu: women’s overweight &gt;30%</td>
</tr>
<tr>
<td>Package for Teenage Pregnancy</td>
<td>Countries or areas where &gt;10% of women 20-24 years old have given birth before age 18</td>
<td>Indonesia, Lao PDR, Papua New Guinea, Solomon Islands, Marshall Islands and Nauru: ≥10% of women aged 20-24 reporting giving birth before the age of 18</td>
</tr>
<tr>
<td>Package for Food Insecurity</td>
<td>Areas of inadequate food availability or access</td>
<td>Accepted national and sub-national indicators for food security should be used. Based on FAO data on food availability at a national level, countries where this Package may be relevant are Timor-Leste, DPRK, Lao PDR, Cambodia and Mongolia.</td>
</tr>
</tbody>
</table>
Packages for implementation by all countries

The following three packages are for implementation by all countries. They include a core package for maternal and child undernutrition and a package for nutrition in emergencies. A Water and Sanitation Package is also included because of the central role of insufficient clean drinking water, and particularly insufficient sanitation, in causing undernutrition. The importance of improved water and sanitation coverage for nutrition was felt to be sufficiently strong that all countries should prioritize implementation of the Water and Sanitation Package in order to reduce maternal and child undernutrition.

Core Package for Maternal and Child Undernutrition

As discussed in Volume 2 of this regional approach, the majority of countries in the region suffer from excess stunting in young children, inadequate attention to maternal nutrition and micronutrient deficiencies in women and children. The UNICEF regional approach for the EAP region therefore proposes a ‘core’ package of nutrition specific and sensitive interventions for implementation in all countries, focused on reaching women and children during the 1,000 days from conception through early childhood; the “critical window of opportunity.” In a few countries, namely China, Mongolia, Malaysia, Thailand, and Tuvalu, child stunting is <20% and maternal undernutrition is <10%, with anaemia rates also appearing to be relatively low in China, Mongolia, and Thailand. These countries might choose not to implement the Core Package on a national scale. In these countries, the Package should be implemented sub-nationally in areas where child and/or maternal nutrition are less optimal, and consideration should be given to implementing specific interventions within the package that address poor nutrition situations.
**Figure 6: Core Package for Maternal and Child Malnutrition**

<table>
<thead>
<tr>
<th>Nutrition Specific Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maternal Interventions</strong></td>
</tr>
<tr>
<td>• Periconceptual folic acid supplementation fortification*</td>
</tr>
<tr>
<td>• Iron and folic acid or multiple micronutrient supplementation (MMS) of pregnant and lactating women</td>
</tr>
<tr>
<td>• Intermittent (weekly) iron and folic acid supplementation of reproductive age women</td>
</tr>
<tr>
<td>• Calcium supplementation of pregnant women</td>
</tr>
<tr>
<td>• Deworming of pregnant women</td>
</tr>
<tr>
<td>• Pregnancy spacing</td>
</tr>
<tr>
<td>• Nutrition counselling for healthy dietary intake</td>
</tr>
<tr>
<td>• Nutrition screening and food supplementation if under-nourished</td>
</tr>
<tr>
<td><strong>Infant and Young Child Interventions</strong></td>
</tr>
<tr>
<td>• Delayed cord clamping</td>
</tr>
<tr>
<td>• Breastfeeding support in maternity/newborn care incl. in context of HIV*</td>
</tr>
<tr>
<td>• Counselling, support and communication on breastfeeding incl. in context of HIV</td>
</tr>
<tr>
<td>• Communication/counselling for improved complementary feeding</td>
</tr>
<tr>
<td>• Multiple micronutrient powders (MNP s) for home fortification*</td>
</tr>
<tr>
<td>• Vitamin A supplementation of children 6-59 months</td>
</tr>
<tr>
<td>• Deworming of children 12-59 months</td>
</tr>
<tr>
<td>• Zinc supplementation as part of diarrhoea treatment</td>
</tr>
<tr>
<td>• Treatment of severe acute malnutrition – facility-based including outpatient treatment</td>
</tr>
<tr>
<td>• Prevention and treatment of common childhood diseases (diarrhoea, pneumonia, measles, malaria etc.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nutrition Sensitive Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social transfers with nutrition counselling targeted at the nutritionally at risk</strong></td>
</tr>
<tr>
<td>• Increased access of girls to primary and secondary education</td>
</tr>
<tr>
<td>• Early childhood development/education</td>
</tr>
<tr>
<td>• Maternity protection in the workplace</td>
</tr>
<tr>
<td>• Interventions to reduce tobacco consumption and indoor air pollution</td>
</tr>
</tbody>
</table>

* Additional maternal and child interventions
For example, Thailand has the lowest breastfeeding rate in the region and the breastfeeding interventions should be implemented even if other interventions in the Core Package are not felt to be needed. It is also important to remember that the primary strategy for reducing overweight and obesity, which are problems in these countries, is the prevention of intrauterine growth retardation and improving child nutrition, including increased linear growth in early childhood and prevention of rapid weight gain in later childhood. **Thus, the Package for Child and/or Maternal Overweight and Obesity assumes implementation of the Core Package.**

The list of interventions in the Core Package is based upon the Lancet Nutrition Series 2008 but it also includes interventions from the SUN list of nutrition specific interventions, latest recommendations by WHO, and further interventions found to be effective by the Lancet Nutrition Series 2013. In addition to the Lancet Nutrition Series 2008 list it includes interventions such as periconceptual folic acid supplementation or fortification, multiple micronutrient powders for young children, intermittent iron and folic acid supplementation of reproductive age women, and breastfeeding support in maternity and newborn care (i.e. institutionalizing the Baby Friendly Hospital Initiative (BFHI) principles in the health system). It also addresses infant and young child feeding (IYCF) support in the context of HIV, for which policies, systems, and services should be in place in all countries regardless of HIV prevalence. The ‘additional’ maternal and child interventions are shown with an asterix (see Figure 6). It includes health system-based treatment of SAM, with inpatient stabilization for complicated cases and outpatient treatment in order to ensure that services are available to treat SAM cases.

In order to also address the underlying causes of undernutrition, a number of nutrition sensitive interventions with the strongest evidence of impact are also included.

UNICEF should advocate for all interventions in the Core Package and provide direct support for implementation of all the nutrition specific interventions primarily through health sector programmes. Direct UNICEF support for the implementation of most of the nutrition sensitive interventions should also be provided through WASH, social policy, and education sector programmes. For the last two nutrition sensitive interventions UNICEF’s role may be more limited to advocacy.

**Package for Nutrition in Emergencies**

1. Ensure effective leadership for nutrition cluster/working group inter-agency coordination
2. Ensure timely nutritional assessment and surveillance systems are established and/or reinforced
3. Ensure support for appropriate IYCF is accessed by women and children
4. Ensure children and women with acute malnutrition access appropriate management services
5. Ensure children and women access micronutrients from fortified foods, supplements or multiple-micronutrient preparations
6. Ensure children and women access relevant information about nutrition programme activities
In the context of East Asia and the Pacific where countries are facing humanitarian crises of increasing frequency and severity, the Nutrition in Emergencies Package is considered necessary for all countries to ensure adequate preparedness in order to effectively respond to emergencies.

Promoting synergies between emergency preparedness and response and developmental nutrition interventions are an opportunity for disaster risk reduction in the nutrition sector. Many nutrition specific and nutrition sensitive interventions increase resilience and reduce the risk of disaster, for example micronutrient supplementation, which reduces vulnerability to disease, undernutrition, and death. It also promotes the development of future human capital.

Breastfeeding also promotes the development of future human capital and protects against infection. Non-breastfeeding infants are at a significantly increased risk of death during an emergency compared to breastfed babies. In addition they are dependent on outside supplies of infant formula whereas breastfed babies are ‘self-sufficient’ on breastmilk. Valuable time and resources are required to support formula fed babies in emergency situations, and often suitable and safe conditions for artificial feeding are impossible to establish due to limitations in safe water, hygiene, fuel access and consistent formula supply. Additional challenges include the difficulty in assisting mothers to re-lactate and the constraints in promoting wet nursing and establishing human milk banks. Yet if optimal breastfeeding practices and capacity to support breastfeeding had been created in the community prior to the disaster, many of these problems would be minimised. Improving capacity for emergency preparedness and response should be seen as a continuum of implementation of the Core Package.

UNICEF is the global cluster lead for Nutrition, which means that not only must UNICEF be responsible for actions within its mandate in an emergency but in countries where the government does not lead the Nutrition Cluster (or relevant sector/working group), UNICEF must also coordinate the Cluster/group in an emergency. This also includes being the ‘provider of last resort’ for any interventions that cannot be implemented by partner agencies. Apart from Nutrition Cluster responsibilities, UNICEF priorities in an emergency are to ensure timely nutritional assessment and surveillance, support appropriate IYCF, and ensure women and children access appropriate acute malnutrition management services, micronutrients from fortified foods, supplements or multiple-micronutrient preparation, and information about nutrition programme activities. Capacity for emergency preparedness and response in nutrition both for UNICEF and governments must be mainstreamed, with priority to the first tier of countries most at risk of emergencies.

In terms of therapeutic and supplementary feeding, the standard division of responsibility is that UNICEF is responsible for therapeutic feeding and management of SAM while the World Food Programme (WFP) is responsible for supplementary feeding of children six months and older and pregnant and lactating women for the management of MAM. However if either agency is unable to provide support for its area of responsibility, the other may provide support in consultation.

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55 UNICEF should also coordinate the Cluster in times of non-emergency to maintain coordination, capacity building and preparation and planning activities.
57 WFP/UNICEF. Updated guidance on mutual areas of responsibility and collaboration for nutrition. 2 April 2011.
**Package for Water and Sanitation**

1. Communication on hand washing with soap
2. Communication on the safe disposal of faeces, especially children’s faeces
3. Elimination of open defecation and increased access to sanitation
4. Facilitate access to water for hand washing and hygiene practices, as well as clean drinking water

Water and sanitation interventions prevent and reduce malnutrition by reducing faecal ingestion, which causes intestinal infections. The most effective interventions are thus those that block the critical path by which faeces and enteric pathogens enter human hosts. Curtis et al. argue that the two principal interventions that establish a primary barrier for preventing faeces from entering the domestic environment are safe excreta disposal and hand washing. Eisenberg et al. explains that the benefits of water quality interventions depend upon sanitation and hygiene conditions. Where sanitation conditions are poor, water quality improvements may have minimal impact because they only stop one pathway of infection. Thus critical WASH interventions in conditions of poor sanitation that will improve nutrition status are those that remove faeces from the domestic environment and support and promote hand washing with soap. In conditions of good sanitation, the availability of improved water becomes more important.

The Water and Sanitation package includes, in particular, the interventions that are likely to prevent faeces from entering the domestic environment, and the mouths of children. They build upon the hand washing promotion that is already included in the Core Package. The Package should be implemented in all countries of the region because of the significant role poor sanitation plays in causing undernutrition. Currently only two Pacific countries have 100% access to improved sanitation and in five countries the coverage is less than 50%. Based on Joint Monitoring Programme 2013 data Cambodia, Kiribati and Lao PDR have more than a 30% open defecation rate nationally with more than 30% open defecation in rural areas of Indonesia and Timor-Leste.

Implementation of the Water and Sanitation package should be directly supported through the WASH sectors of UNICEF country programmes, in close collaboration with Nutrition sectors. UNICEF should advocate for improved recognition of the importance of WASH for improved nutrition and directly support implementation of the interventions in the Package on the widest scale possible. WASH and nutrition interventions should be jointly designed, planned, implemented, and monitored in priority vulnerable areas where both WASH and nutrition indicators are poor. Because of the extremely strong linkages between WASH and nutrition, UNICEF WASH programmes should explicitly aim to improve the nutritional status of children from 0-2, in particular those who are at risk of stunting and the effectiveness of WASH programmes should be based on the extent to which they have reduced stunting.

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58 WHO & UNICEF. Progress on Sanitation and Drinking Water: JMP 2013 Update.
Packages for implementation based on national/sub-national situation

The following packages are for implementation in specific situational contexts as indicated by the proposed cut-off points.

Package for Child Wasting

1. Establish community-based treatment of SAM, linked with existing facility-based treatment, including community screening
2. Integrate prevention and treatment of MAM interventions, including supplementary food
3. Accelerate prevention and treatment of diarrhoea, pneumonia and malaria

The Package for Child Wasting is intended for implementation in circumstances where the wasting prevalence rate exceeds 10%. This cut-off has been selected because a wasting prevalence of 5-9% is categorized, by WHO, as “poor” and 10-14% as “serious.” In emergency settings, a >10% prevalence with “aggravating factors” is the trigger point for generalized supplementary feeding of vulnerable groups.

The package includes community-based and facility-based treatment of SAM. In addition, if severe wasting rates are high, moderate wasting, moderate and severe stunting rates are also likely to be high, it includes treatment of moderate malnutrition. Therefore it includes behaviour change communication and distribution of supplementary food if appropriate, as well as accelerated treatment of childhood infectious diseases as these are likely to be aggravating factors and one of the causes of child undernutrition. The Package for Child Wasting assumes that in in conditions, or areas, when child wasting prevalence is <10%, that treatment of SAM is at least available in health facilities, with outpatient treatment. The principal of the Child Wasting Package is that above a wasting prevalence of 10%, the establishment of community-based treatment facilities, including community screening and prevention and treatment of MAM is justified.

UNICEF should directly support government or NGO implementation of interventions 1 and 3, including policy development, capacity building, maintenance of supply chain etc. as appropriate. The second intervention, prevention and treatment of MAM, is primarily the responsibility of WFP as specified in the WFP/UNICEF MOU, including the provision of supplementary foods (improved fortified blended foods and ready-to-use supplementary foods) and the promotion of local food products. The MOU recognizes however that if WFP is unable to support such activities, UNICEF may provide support if resources allow in consultation with WFP at either country, regional or headquarter level.

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64 WFP/UNICEF guidance on mutual areas of responsibility and collaboration for nutrition. 2 April 2011.
Cambodia, Indonesia, Malaysia, and Timor-Leste have child wasting rates in excess of 10% and should consider implementation of this Package on a nation-wide basis or, if provincial/district data on wasting is available, in those provinces/districts where child wasting exceeds 10%. The latter also applies to countries, which have a national prevalence of less than 10% but may have selected highly vulnerable regions where prevalence exceeds 10%.

Package for Maternal and/or Child Overweight and Obesity

As discussed in the situation analysis (Volume 1), the prevalence of overweight and obesity in women is high in several countries in the region and adult obesity is increasing in almost all countries. In Indonesia, Mongolia and Thailand, overweight is already greater than 10% among children under five years old. The situation is likely to worsen unless specific interventions are undertaken to halt it; the CIP and regional targets are for no increase in childhood overweight.

Recognizing that the primary strategy for reducing overweight and obesity is the prevention of intrauterine growth retardation and improving child nutrition in the 1,000-day window of opportunity, including optimal IYCF practices and increased linear growth in early childhood, this Package assumes that interventions in the Core Package are already being implemented. This Package therefore includes additional interventions that have some evidence for reducing child and adult overweight and obesity.

The proposed package and criteria in the regional approach is distinguished from the UNICEF global approach in that the latter recommends that countries with “high prevalence of childhood overweight coexisting with stunting prevalence over 20%” should focus on direct nutrition interventions for mothers and infants during the 1,000-day window to reduce stunting, while those with “high prevalence of child overweight and obesity” should implement those maternal and child interventions in the 1,000-day window and also consider the following interventions and actions (which are broadly in line with the regional package for overweight and obesity):

- Evidence-based advocacy to prevent and reduce child overweight and obesity
• Data collection and analysis to monitor prevalence of child overweight and obesity, disaggregated by disadvantaged groups

• Provision of healthy foods in preschools and schools

• Nutrition and health education (including physical exercise) at school

• Legislation to support improved nutritional quality of available foods (e.g., food fortification, elimination of trans-fatty acids) and ensure appropriate food labelling

• Legislation to control inappropriate advertising of food aimed at children and youth

• Legislation to ensure healthy nutrition choices are available in schools (e.g., limiting access to sugar-sweetened beverages)

The proposed package of interventions in the regional approach is taken from a paper on The Double Burden of Malnutrition by Roger Shrimpton for the World Bank.65 The package is based upon three earlier pieces of work66, 67 68 and, as noted above, assumes interventions in the Core Package for Maternal and Child Undernutrition are already being implemented. In particular it assumes interventions to improve maternal nutrition and reduce intrauterine growth retardation, and to improve breastfeeding and complementary feeding, are being implemented. As discussed in the volume on evidence (Volume 3), maternal and child undernutrition pre-dispose older children and adults to overweight and obesity, thus tackling overweight and obesity starts with the prevention of undernutrition in earlier generations.

In principle, overweight and obesity reduction interventions need to eliminate the energy imbalance between dietary intake and physical activity that leads to weight gain. Because of the multitude and complexity of the factors that led to this energy imbalance, a comprehensive approach is needed to address the main causes of the epidemic. Integrated interventions need to be applied throughout society and across the life course in order to be able to reinforce and sustain long-term behaviour change.

Diverse interventions are needed that combine direct interventions (which influence energy balance), structural actions (which inform and enable change and indirectly affect energy balance), and amplifiers (which address social norms and other contexts). In addition, core investments must be made in coordination, networking, and communications to maximize effect. Finally, obesity should be addressed in coordination with efforts to address other major issues that confront society, such as poverty reduction, improving food security and action against climate change, as they all have strong links with obesity prevention, including common causes and solutions.69

Recognizing that the CIP calls for no increase in child overweight and that some of the most important interventions to prevent future child and adult obesity are being implemented under the Core Package, the full Overweight and Obesity Package should be implemented in all countries or areas where child overweight exceeds (or is believed to exceed) 10% and/or women’s overweight is greater than 30% or is increasing. Countries where child overweight exceeds 10% are Indonesia, Thailand and Mongolia and countries where women’s

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overweight exceeds 30% are China, Fiji, Kiribati, Malaysia, Mongolia, Nauru, Solomon Islands, Thailand, Tuvalu, Vanuatu, Philippines and Singapore. Countries where either child or women’s overweight is increasing should also consider implementing this Package.

While UNICEF might not be involved in supporting implementation of all interventions in the Package, UNICEF should advocate with national government and other stakeholders for the Package. UNICEF should support, in particular, the school-based interventions through the Education sector. Where appropriate, the school-based interventions could be implemented within the “Nutrition-Friendly Schools Initiative (NFSI).” The NFSI provides a framework for designing integrated school-based intervention programmes which address the double-burden of nutrition-related ill health, building on and inter-connecting the on-going work of various agencies and partners including UNICEF’s FRESH Initiative. Child-Friendly NFSI applies the concept and principles of the BFHI. UNICEF can also support the development and design of legislation measures in the Package through the Social Policy programme.

**Package for Teenage Pregnancy**

<table>
<thead>
<tr>
<th>Package for Teenage Pregnancy (% of 20-24 year olds who gave birth before 18 &gt; 10%)</th>
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<tbody>
<tr>
<td>1. Develop laws and policies that prohibit early marriage</td>
</tr>
<tr>
<td>2. Develop community mobilization interventions to discourage early pregnancy and marriage</td>
</tr>
<tr>
<td>3. Establish adolescent health services that provide access to contraceptives and care, including skilled antenatal, childbirth and postnatal care and safe abortion</td>
</tr>
<tr>
<td>4. Improve access to formal and non-formal education for adolescent girls, including access to reproductive health information and education</td>
</tr>
</tbody>
</table>

The proportion of adolescent girls married/in a union and the proportion that have given birth before 18 years of age in the region have been reported in Chapter 3. As noted, adolescent pregnancy affects a large number of young women and there are significant health and nutritonal advantages in delaying pregnancy beyond adolescence and into the twenties. It is recommended that this package be implemented in all countries where more than 10% of 20-24 year olds have given birth before 18. This cutoff is justified by the high level of vulnerability of adolescents and the wide range of potential negative impacts that could be averted for both the mother and the child. More than 10% of women aged 20-24 reporting giving birth before the age of 18 in Myanmar, Papua New Guinea, the Solomon Islands, Lao PDR, the Marshall Islands, Thailand and Nauru. These countries should all consider implementing this Package.

In order to address the issue of early pregnancy and poor outcomes, WHO commissioned a systematic review of evidence of the effective interventions. Based on this review they made a series of recommendations under the following headings:

1. Reduce marriage before the age of 18 years
2. Reduce pregnancy before the age of 20 years
3. Increase use of contraception by adolescents at risk of unintended pregnancy
4. Reduce coerced sex among adolescents
5. Reduce unsafe abortion among adolescents
6. Increase use of skilled antenatal, childbirth and postnatal care among adolescents

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70 http://www.who.int/nutrition/topics/nut_school_aged/en/
Achievement of the above outcomes will require laws and policies that prohibit early marriage, community mobilization to discourage early pregnancy and marriage and support access to contraceptives, improved access to formal and non-formal education for adolescent girls, access to reproductive health information and education through schools, and improved health services to provide adolescents with contraceptive information and services and skilled antenatal, childbirth and postnatal care and safe abortion.

EAPRO has developed a Situation Analysis of Adolescent Pregnancy\textsuperscript{72} for the region that includes initiatives for addressing adolescent pregnancy. They include ensuring a supportive environment, such as the development of laws and policies to protect adolescents; improving school enrolment and quality of education to empower adolescents; ensuring access and quality of reproductive health services; and utilizing media and other communication approaches. There are many similarities between the WHO and EAPRO-proposed interventions. These are thus the interventions in the Teenage Pregnancy Package.

In collaboration with UNFPA, UNICEF should provide direct support to implementation of interventions of the Teenage Pregnancy Package including advocacy for necessary policies, laws, services and programmes and assistance in their design and implementation. Interventions in the Teenage Pregnancy Package should be supported by the Health and Education Sections, as well as Social Policy. As noted in the Technical Supplement, the most successful programmes to prevent teenage pregnancy have been multi-faceted, providing a combination of health services, including sex education and contraceptive provision, and personal and social development.

As discussed in Chapter 2, food security is an essential pre-requisite for nutrition security although poor maternal and child nutrition is not necessarily a result of food insecurity. This package is for implementation in communities, or at times, when access to and/or availability of food is low, such as during droughts, food price crisis or amongst poor communities who are unable to purchase sufficient food to meet their needs. As different countries use different indicators of food insecurity, including access and availability, it is recommended that UNICEF refer to accepted national indicators. In future, it may be possible to use the Integrated Food Security Phase Classification, although this

\textsuperscript{72} EAPRO. Situation Analysis of Adolescent Pregnancy in East Asia and the Pacific (draft).
system includes measures of nutritional status, as well as indicators of food availability and access, but currently, an insufficient number of countries are using this system to establish a cut-off point for the whole region based on these classifications.

With the nutrition objective in mind, the agriculture interventions in the Package are primarily concerned with increasing the availability and access of households to nutritious foods. In conditions of food insecurity, where access and availability are the main problem (rather than utilization), such interventions should theoretically improve maternal and child nutrition, as long as other requirements for nutrition, such as women’s time for child care, are not compromised as a result. Three cross-cutting concepts that improve the impact of agriculture interventions on nutrition are: (i) empower women as the primary caretakers in the household; (ii) incorporate nutrition education to improve consumption and nutrition effect of interventions; and (iii) manage natural resources for improved productivity, resilience to shocks and adaption to climate change, and increased equitable access to resources through soil, water and biodiversity conservation. In areas where food security is constrained by income and economic access rather than food availability, cash transfers may be more effective.

It is anticipated that UNICEF’s primary role will be in advocating for these interventions, rather than directly trying to support their implementation, because this is likely to fall outside of UNICEF’s mandate and expertise. In addition, however, the Package includes the distribution of supplementary food for pregnant and lactating women and young children to protect them against the negative effects of low food availability/access during these vulnerable periods of the life cycle. This preventative activity will reduce the number of women and children presenting with severe malnutrition. As already noted, support of supplementary feeding is the responsibility of WFP, but if WFP is unable to provide support, and UNICEF has the resources, UNICEF could instead support this intervention in consultation with WFP. Overall however, priority should be given to advocating for the first five interventions, which will increase the long-term availability of food.

As indicated, accepted national and sub-national indicators for food security should be used to determine if and where this Package should be implemented. However, based on FAO data on food availability at a national level, countries where this Package may be relevant are Timor-Leste, DPRK, Lao PDR, Cambodia and Mongolia. This package may also be relevant for some countries on a sub-national basis.
4 HOW CAN EFFECTIVE INTERVENTIONS BE SCALED UP
It has often been lamented that more effort is put into understanding the ‘what’ of nutrition than the ‘how’. While the 2008 Lancet Nutrition Series said a lot about the ‘what’, it said very little about the ‘how’. However, several publications on how to implement nutrition programmes were already available in the nineties and a wealth of guidance has been produced in recent years.

This chapter covers how to draw on existing global policy and programme guidance in order to bring together and implement at scale the various packages of nutrition interventions as described in Chapter 6. It draws on experience gained elsewhere in advancing national nutrition agendas through fostering country ownership and broad stakeholder engagement in policy development and implementation, such as the Mainstreaming Nutrition Initiative.

While the focus of this ‘how to’ guidance is oriented towards helping low and middle income countries (LMICS) to scale up nutrition interventions, consideration is also given to understanding the role of UNICEF country offices in facilitating this. Thus the chapter addresses UNICEF’s dual roles in supporting both “upstream” policy and leveraging and “downstream” implementation. The latter may be in a context of on-going support to activities in priority vulnerable districts, in very decentralized government systems or in settings where UNICEF supports modelling of new approaches with the aim of promoting their adoption by governments and other stakeholders for integration within systems and scaling up.

The dual SUN/CIP policy and strategy contexts provide the primary frameworks under which UNICEF nutrition staff in country will operate in during the next decade or more. Their task will be to work together with WHO in particular, as well as WFP, FAO, the World Bank, bilateral and other donors, academic institutions, NGOs and other partners, to help governments develop and implement sustainable, multi-sectoral nutrition strategies and programmes at scale across the life course.

Over the last two decades UNICEF country programme support has increasingly evolved from being a predominantly supply-driven and project implementation modality, to one of advocacy, policy development and capacity building, helping to promote, train, and create greater ability in government so that effective interventions are scaled up in a sustainable manner as an integral part of national systems and institutions. While this modus operandi is very suited to the UNICEF Country programming process, the upstream policy nature of the work in the current rapidly changing environment requires and depends on nutrition staff with a high technical calibre. Essential for the successful design and execution of national nutrition strategies is appropriate capacity, both within government and UNICEF. This regional approach highlights the need to develop enhanced capacities to navigate the policy process for nutrition across the policy cycle: situation analysis, agenda-setting and advocacy, policy development and adoption, development of costed national plans, sustainable implementation at scale and monitoring, as well as review, evaluation and use of knowledge, particularly on bottlenecks and barriers, to adjust programmes and strengthen performance and systems. UNICEF nutrition staff will need to develop some new avenues of collaboration with social policy colleagues and also other institutions and enhance their knowledge and capacity for example in political economy analysis, public financing, systems in multiple sectors, to enhance their efforts to advocate for nutrition reform across the policy cycle.

The successful development of a national nutrition policy process has to properly address a whole spectrum of issues, including: ‘agenda setting’, ‘policy formulation’, and ‘legitimation’, before getting to the stage of ‘implementation’ and then ‘monitoring and evaluation’. This process is described, with somewhat varying terminology and in slightly different order, in several recent global strategic frameworks, including the new UNICEF ’s Approach to Scaling Up Nutrition Programming (2014), the WHO Comprehensive Implementation Plan (CIP) for achieving the WHA nutrition targets (2012) and the SUN movement Revised Road Map (2012).

For example, in the UNICEF global approach, the “strategic operational objectives” provide direction on the process of achieving the overarching nutrition goals, and Objectives 1 to 3 reflect the national policy process addressed in this chapter. (see Figure 7).

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80 UNICEF’s approach to scaling up nutrition programing for mothers and their children. 2014. In process.
81 WHO. Maternal, infant and young child nutrition: comprehensive implementation plan (2012). http://www.who.int/nutrition/topics/WHA65.6_annex2_en.pdf?ua=1
The CIP background Paper 3 on developing country scale-up plans for maternal and child nutrition proposes steps for the scaling up process. Step 1 refers to context mapping and assessment of implementation challenges in countries, Step 2 describes the process of holding a country stakeholders’ workshop to discuss and identify existing challenges for implementation of scale up plans, and Step 3 is the analysis of programme delivery options and preparation of policy brief.

Similarly, the SUN framework refers to various “stages” in the policy process towards scaling up nutrition: Stage 1 is essentially about agenda setting and policy formulation and Stage 2 largely concerns legitimization, while Stage 3 concerns implementation (see Figure 8). This framework is also being used to monitor progress in SUN countries on an annual basis.

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83 WHO. Background Paper 3: Developing country scale up plans. 2012. http://www.who.int/nutrition/EB128_18_backgroundpaper3_developingcountryscaleupplans.pdf?ua=1
## Indicative activities within the stages

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These frameworks can be used to guide the policy process in each country and to analyse the current status, recognizing that countries in the region are at various stages of development and implementation of national nutrition policies and plans. It is emphasized that reference to SUN in this regional approach does not imply that a country needs to become a SUN country in order to implement actions to reduce malnutrition.

### Stage/Step 1: Setting the agenda and taking stock

Advocacy and political mobilization: The first action of Stage 1 is advocacy to strengthen high-level commitment to tackling maternal and child under nutrition. Identifying and supporting “nutrition champions” greatly facilitates developing national nutrition policy.
Evidence-based advocacy on an on-going basis is required to ensure nutrition is well understood, features prominently, and is well positioned on national development agendas. Advocacy needs to be prioritized based on concrete and up to date evidence, contextualized for local situations and specific audiences, adapted to respond to emerging issues or changes, and focused on the most vulnerable. The CIP background paper referenced above contains suggestions and a template for developing advocacy briefs.

UNICEF is well placed to advocate for increased awareness and commitment of governments, donors, organizations, and others to improve nutrition and commit resources. Enhancing skills and knowledge in policy advocacy and the development of compelling advocacy materials is an important stream of capacity building for UNICEF to prioritize for its nutrition and other staff in some countries.

The national agenda for nutrition is multi-sectoral and ideally should be developed in the context of an overarching national strategy for food, health, and nutrition security. As such, the organizational locus for nutrition should ideally be above or across sectoral ministries, where it can help accelerate the implementation of the national strategies and plans. Obviously this needs to be carefully articulated depending on the national context, and in many ways is the very essence of “agenda setting”.

With SUN, a particular structure and process for organizing the country level movement is outlined, however countries that have not joined SUN can also refer to this and adapt it to their needs and context. The SUN country structures follow the global level structure with five networks: government, civil society, business, donors, and international organizations. A high-level government official identifies a High Level Government Focal Point, with responsibility for convening and working across government ministries, as well as calling on the other partners to appoint focal points. The donor community, civil society, and business organizations each identify a “convener” to help coordinate with others and help align their assistance behind national plans.

The convener of multilateral organizations, including UNICEF, the World Bank, WHO, WFP and FAO, will necessarily work very closely with the government convener. Whoever takes this lead role should be aware that there will likely be a lot of technical preparation in backstopping the High Level Government Focal Point and donor convener in the subsequent steps of the processes. It is often the case that UNICEF is the only donor (multilateral or bilateral) agency with a full-time nutrition person at country level that is able to take on this role.

Once the national SUN movement or national nutrition structure is established, a series of technical tasks must be undertaken starting with several “stock taking” activities, for which a small technical working group is needed.

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The lead technical nutrition unit in government should lead this working group, which is most likely in the Ministry of Health. The need for a strong technical unit to lead the development of these working documents has to be separate from the more political, central, coordinating function of a Nutrition Council or other such entity (see below). Both are needed and their functions are quite separate. Technical leadership from the health sector is often sought by other sectors, yet, unfortunately, the technical unit is often buried at a subdivision level in a Department of Family Health, for example. The need to strengthen technical leadership will be discussed further in the Monitoring and Evaluation section of this chapter. In the meantime a lot of support will be needed from all stakeholders in carrying out these “stock taking” activities.

Stocktaking: The first stocktaking document is the national nutrition situation analysis, which describes the maternal and child malnutrition issues of the country and indicates the problems the national nutrition strategy and plan will address. The situation analysis involves compiling, analysing or collecting information on the nutritional status of populations broken down by gender, age categories, income, children with disabilities, disadvantaged groups, geography and other locally relevant dimensions of equity. The multi-pronged equity analysis is crucial to determining the prioritization and focus of investments in nutrition. The principle conclusions of UNICEF’s seminal paper “Narrowing the Gaps” are highly relevant for focusing investments in nutrition on those groups and areas which suffer the greatest deprivations so that achievements of targets are accelerated.

The situation analysis also involves describing the malnutrition determinants context of the country, with a particular focus on vulnerable populations, including health, environmental and socio-economic determinants as per the causal framework. This situation analysis will serve as the basic reference for advocacy and strategy design purposes and should include, where possible, estimates of lives lost, disabilities and long term consequences caused, plus financial costs to the nation – estimated to be at least 3% of GDP, with some studies showing a figure double that. It is important for advocacy purposes to reflect the numbers of people affected, not just the prevalence rates of different types of malnutrition, particularly in certain countries in the EAP region where prevalence may be relatively lower but numbers large. The relative importance of different forms of malnutrition to national development may vary across contexts, as per the different sets of packages proposed in this regional approach, and this should also be reflected in the tailoring of the advocacy messages and investment cases.

Tools such as the Lives Saved Tool (LiST) can be helpful in modelling the potential numbers of lives saved or stunting cases that may be averted by means of achieving selected targets in scaling up different packages of evidence-based interventions. Other tools developed earlier for modelling to quantify the consequences of malnutrition and demonstrate the huge

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85 CEPAL/WFP Análisis del impacto social y económico de la desnutricion infantil en América Latina: resultados del estudio en Centroamérica y República Dominicana.
economic and human benefits of nutrition improvement include the Profiles tool\(^{92}\) and the Damage Assessment tool\(^{93}\) for micronutrients.

In making the case for investment in nutrition, the estimated potential returns on investment are an important component of advocacy. The Copenhagen Consensus expert panel estimated that the returns on investment in nutrition were $30 for every $1 invested.\(^{94}\) This may be conveyed side by side with the potential costs of not addressing nutrition to make the case in a compelling way.

The second stocktaking activity is a **policy and programme assessment** to document the existing efforts to tackle the maternal and child nutrition problems, including the mapping of which government nutrition policies, legislative frameworks and programmes exist across the various sectors and the type of institutional systems in which they are delivered, which donors are supporting which programmes and where, the existence and functioning of coordination mechanisms, and the resource envelope available for nutrition in the country across all stakeholders. Information on the available resources may not be readily available for nutrition, as it often does not have earmarked budget lines within national budgets nor does it have clearly demarcated fiscal space like other more discrete sectoral social services, such as health or education. The analysis of existing resources and investments in nutrition is important in reflecting the gap between the current situation and the additional cost of reaching targets which the costed national plan outlined below will set out.

This stocktaking component also needs to analyse the **bottlenecks and drivers** that impede or facilitate programme delivery and performance at national and sub-national levels. Bottlenecks may be analysed using a “determinants framework” (see below) encompassing aspects of the enabling environment, supply and demand for services, and the effective coverage of interventions or the adoption of recommended nutrition practices. Such programme analysis should use the ‘nutrition specific’ and ‘nutrition sensitive’ classification of interventions, and take note of the levels of decentralization in the implementation of each intervention, considering not just policy and programme-level documents, but also the legal and human rights-based dimensions of these.

Examples of stocktaking analyses include the coverage map facilitated by REACH in Lao PDR,\(^{95}\) the GAP analysis done in Nepal\(^{96}\) and Madagascar,\(^{97}\) and the baseline analysis of bottlenecks and barriers related to the performance and enabling environment for the package of SUN interventions in Malawi.\(^{98}\)

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91 Lives Saved tool (LiST) http://www.jhsph.edu/departments/international-health/centers-and-institutes/institute-for-international-programs/list/
93 http://www.unicef.org/media/files/davos_micronutrient.pdf
98 Detailed case study in progress by UNICEF Malawi.
The stocktaking of current strategies and programmes also needs to critically analyse whether the approaches have been successful in the country and what the factors for success (or lack of) were, or whether they are aligned with best practices and the most up to date knowledge and evidence on the theory of change and effective programme design and management paradigms. The sources for this information include country-specific case studies, reviews, evaluations and analyses, along with a global syntheses of evaluations and lessons, for which a few examples are referenced.99, 100 This should be done for the national nutrition strategy as a whole, but also drilling down in detail into specific programme components.

For an example of the latter, regarding the design of programmes to improve breastfeeding, many countries still need to make the shift from past programming paradigms that did not result in significant improvement of breastfeeding practices, such as the following:

- “Token” reflection of breastfeeding in policies, strategies and programmes; low priority, not valued, only small-scale, externally funded projects
- Programmes designed based on outdated evidence (or not based on evidence at all)
- Programmes do not reflect a contextualized theory of change in the applicable pathways leading to results for a particular area
- Only addressing one or two programme elements (e.g. Code, BFHI) rather than a comprehensive approach
- Interventions not institutionalized or sustained
- No results-based management framework; no critical analysis and adjustment
- No monitoring of interventions on an annual basis, e.g. in health systems
- “Information, Education and Communication” (IEC) with generic, one-way messaging, mainly printed materials, or with the once-a-year World Breastfeeding Week
- Old methods of programming and advocacy using outdated approaches and tools

An increasing number of countries are moving towards these successful programming approaches, which are supported by reviews of programmes in a variety of countries:101, 102

- Breastfeeding is a non-negotiable part of nutrition and child health policies, programmes, systems and budgets in development and humanitarian settings
- Evidence-based, effective interventions, tailored to current local context that are systematically designed
- Comprehensive policy/programme design and nationwide implementation

100 PAEDIATRIC & PERINATAL EPIDEMIOLOGY supplement: Improving maternal, newborn, and child health outcomes through better designed policies and programs that enhance the nutrition of women.
• Institutionalized within health systems including curricula, work structures and information system

• Communication based on formative research to address local barriers, beliefs and norms continuously delivered using multiple channels and using multiple approaches, including social marketing, participatory dialogue and interpersonal communication and social mobilization

• Applying learning from experience, latest approaches and best practices, supported by updated materials, practical guidance and tools

A third component of stock tacking is an assessment of nutrition capacity. Acceleration and sustaining progress in nutrition will not be possible without national and global support to a long-term process of strengthening related systemic and organizational capacities. A practice framework has been proposed to guide the assessment of nutrition capacity in LMICS which considers capacity development in the context of (i) the overall system of policies and governance issues which influence how and where those capacities will be employed, (ii) the organizational and institutional structures that impact on performance and practice of capacity; (iii) workforce structures that can either facilitate or inhibit the ability of workers to function efficiently and effectively, (iv) and community levels where the capacity of often multi-purpose workers impacts on the families they directly serve. Such capacity assessments have been carried out in Nepal, Bangladesh and Indonesia.

Stage/Step 2: Preparing for scaling up

Coordination, collaboration, and partnerships:
The second stage is to prepare for scaling up by developing the national nutrition plan of action. In parallel to the advocacy and political mobilization described above, a series of agreements need to be developed among government sectors about how the plan will be developed.

Although the national nutrition strategy is necessarily multi-sectoral, it is essential to implement sectorally. Indeed the World Bank experience and guidance in this regard emphasizes this by recognizing that while it is logical to think and plan multi-sectorally, sector by sector actions must follow, tailored to the specific context, objectives, and operating environment of each sector. Previous experience with multi-sectoral nutrition programmes dictates that a high level coordination forum is needed to agree to and sign off on the national plan and budget, the situation analysis, and the programme and policy assessment. Once national sectoral budgets are agreed, each sector implements its own plan, each of which will have nutrition specific and/or nutrition sensitive interventions included. Documented experience of how to implement multi-sectoraly is quite rare however, although some recent case studies have shown encouraging results.

The national coordination body should be a high level ‘Nutrition Council’, and include representatives of all of the actors involved in tackling maternal and child malnutrition, including government, academia, donors, as well as the private sector. This forum is
essentially political rather than technical in its composition and is focused on approving policies and budgets and reviewing overall progress and constraints rather than defining and/or resolving technical issues. Where this high level body is located is, of course up to each country to decide, but considering the multi-sectoral nature of the nutrition problems, as well as their solutions, it is probably best that the Nutrition Council is located outside and above the various implementing sectors, such as Health, Education and Agriculture.

The various coordination forums and partnerships once established should strive to follow various principles that are considered fundamental to the achievement of national nutrition objectives. SUN documents can be referenced for these principles, which have also been applied in advancing other multi-sectoral, multi-partner development agendas such as HIV/AIDS. The 2010 SUN Framework for Action included operational principles for moving to action, of which the “Three Ones” is of special importance for coordination, as they are: one common results framework that provides the basis for coordinating the work of all stakeholders; one national coordinating authority, with a broad multi-sectoral mandate; one agreed national monitoring and evaluation system. The 2012 SUN Strategy for 2012-2015 further includes seven fundamental principles, which are related to all stakeholders behaving transparently, with inclusivity, and being continuously communicative and willing to learn and be open to negotiate while developing plans to scale up cost effective interventions through rights-based programmes in a mutually accountable fashion.

With regard to SUN, there are several international NGOs that are concerned about the lack of mention of conflict of interests in these principles, especially considering the strong participation of food-related corporations among the SUN private sector support group. The concern is that national governments are entering into partnerships with food-related businesses, whose interests lie in creating markets for their products, without any consideration of how to ensure there is no conflict of interest. How to deal with these issues has been well discussed in the literature, and is equally applicable all countries (SUN and non-SUN).

**Developing and costing the national nutrition plan:** The process of developing the national nutrition plan should follow the above principles, and be done in an open and transparent fashion, incorporating cost-effective measures into each sectoral plan. This plan will subsequently become the tool for mobilizing domestic as well as external financing, and therefore needs careful construction. This plan should include any revision necessary of national policies, strategies and sectoral plans of action and monitoring/information management frameworks that focus on nutrition, as well as the development of national multi-year costing estimates and national and decentralized budgets. The national nutrition plan needs to be openly developed and discussed in public workshops, where each sector agrees to aim for specific objectives through clear-cut activities and outcomes that relate to the reduction of maternal and child malnutrition. An example of a tool to help those tasked with designing such plans is the one developed by the Core Group.

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The utility of developing logical frameworks is often debated, but its use in participatory planning workshops can certainly help develop agreement on project goals, specific objectives and outcomes by the various sectors involved and so ensure the “formalization” and “legitimization” aspects of the policy process. Having the national plan in the form of an agreed logical framework also facilitates the development of costing exercises and budgets, which can be done separately after the planning workshop by economists more familiar with calculating real costs. Different approaches and tools for costing exist, for example the model used by the World Bank for the “Scaling Up Nutrition: What Will It Cost” analysis (2010) and the costing presented in the 2013 Lancet Nutrition Series, as well as the approach used for the majority of SUN costed plans. The latter address the multi-sectoral nature of the plans and follow the important principle of combining expertise on nutrition with economic analysis in the costing team. There are several costing tools either readily available and/or being developed that could also help with these calculations.

The national costing should consider the full set of intervention packages across multiple sectors. It should aim to address staff needs in each sector, including the numbers and responsibilities of each and their supervisory needs; technical assistance needs, both external and internal; programme implementation needs, including activities such as training and health days with meeting allowances and fuel costs, for example; programme supply needs, including communication materials and job aids, micronutrient supplements and deworming tablets, products for the management of severe and moderate acute malnutrition as well as food supplements or cash credits.

Once the national nutrition plan is developed and costed, and the potential in terms of progress on targets and return on investment estimated, it will also allow the various partners to carry out advocacy for the necessary commitments for the implementation of the plan, encouraging both Government and development partners to increase their investments in scaling up nutrition. The commitments need to be allocated against multi-year budgets in multiple sectors; sub-budgets may also be developed in a highly decentralized way in some countries.

Country level programme delivery

As discussed, accelerating the reduction of maternal and child malnutrition is going to require the large-scale, equitable and sustainable delivery of nutrition specific and nutrition sensitive interventions. In general, nutrition specific interventions are mainly delivered by the health sector whereas nutrition sensitive interventions are mostly delivered through other sectors such as education, agriculture, water and sanitation, and social welfare.

Stage/Step 3: Scaling up rapidly to deliver results

Considering the importance of nutrition interventions “going to scale” or being implemented “at scale,” the topic seems to be researched very rarely. There are several reviews\textsuperscript{118, 119, 120, 121} that look at “scaling-up” but they contain remarkably little in terms of concrete guidance on how to do it. A 30 year old seminal paper by Myers\textsuperscript{122} gives the greatest insight, especially in its description of three ways of going to scale, i.e. by explosion, by association and by expansion (see Figure 9). How to “scale up” nutrition interventions (be they nutrition sensitive or nutrition specific) to achieve full coverage depends on the complexity of delivery of the various interventions. The time scale is indicative and could vary from months to years depending on the complexity of the intervention.

Scaling up through \textbf{explosion} is for the least complex interventions. It often bypasses the pilot stage and goes to scale immediately with one intervention model. This model can then try to adapt and accommodate to local situations as best as possible, but is essentially a ‘top-down’ process of implementation. Perhaps the best example is mass distribution of vitamin A capsules during child health days held twice a year, achieving over 80% coverage almost immediately.

Scaling up by \textbf{association} is more linear, and achieved by adding the coverage of several similar intervention approaches in different areas, gradually modifying or improving them towards the desired intervention model. More complex nutrition specific interventions should be scaled through this more gradual approach. For example the promotion of breastfeeding and counselling for complementary feeding can be improved by better management, supportive supervision and regular refresher training and use of standardized protocols in all health facilities. League tables can be constructed ranking facilities by performance indicators, and reviewed at periodic regional meetings. The best performing facilities can serve as models, where staff from other facilities can come and get refresher courses. Such an approach can be implemented in all districts simultaneously, although it will require some time to begin to see results.

\textsuperscript{119} Nair et al. Mobilizing women’s groups for improved maternal and newborn health: Evidence for impact and challenges for sustainability and scale up. Int J Gynaecol Obstet 2012.
\textsuperscript{120} Mangham et al. Scaling up in international health: what are the key issues? Health Policy and Planning 2010.
\textsuperscript{121} Victora et al. Scaling up maternal nutrition programs to improve birth outcomes: a review of implementation issues. Food Nutr Bull 2012.
Going to scale through **expansion** is best suited to the most complex interventions, often involving various sectors acting together. This typically involves starting small in a pilot project and building the intervention model based on local conditions and then growing incrementally, learning by doing, and adjusting while expanding. The nutrition sensitive interventions developed through agriculture and education sectors are likely to be the more complex, especially if they are to be coordinated with other sector interventions at the district level and below. For this reason they are better scaled up slowly to begin with and monitored and evaluated very closely.

**Delivery of nutrition specific interventions through health sector mechanisms/platforms**

A substantial portion of the components of the Packages described in the previous chapter are delivered through the health sector. In order to accelerate progress in public health and nutrition, and to improve sustainability and efficiency, the strategy for delivering nutrition specific interventions through the health sector needs to maximize opportunities for inserting, integrating and institutionalizing nutrition interventions into existing health services already being carried out by health providers. A much stronger focus on fully institutionalizing nutrition interventions within the health system and public health functions needs to be promoted and effectuated, including pre-service and in-service education, structures, operating procedures and standards for service delivery, quality assurance, performance assessment and supervision, monitoring, information and management systems and budgets.

The World Bank’s\(^{123}\) chapter on delivery of nutrition interventions in the health sector summarizes some of the key health system functions that need to be considered in integrating and strengthening the delivery of nutrition interventions in the health sector (see Figure 10).

Reference is also made to the ‘building blocks’ of health systems strengthening defined by WHO: (i) health service delivery; (ii) workforce; (iii) supplies; (iv) information; (v) financing; and (vi) leadership. All applicable aspects of nutrition interventions need to be fully reflected and integrated in each of the six building blocks.

UNICEF’s analysis in 2013 of nutrition programmes in EAP region countries through the NutriDash information platform shows that for most nutrition interventions the degree of integration is very limited. For example, very few countries report that nutrition is included in the pre-service curriculum; few countries report any nutrition indicators in HMIS; supplies for SAM treatment are not included in the essential medical supplies or drugs lists.

A number of common challenges and bottlenecks for health system delivery of nutrition interventions are summarized below.
Considering and addressing these challenges in each specific context should feature prominently as countries work towards strengthening the design and implementation of the health system nutrition interventions outlined in the various packages in this regional approach. These challenges include:

- **Lack of awareness of nutrition and its critical role for survival, health, and human capital development**, although in many countries this is improving.

- **Nutrition is a low priority for the health sector** in some cases, although in some countries this has changed markedly in recent years.

- **Nutrition strategies and plans are largely underfunded**. Limited analysis of fiscal space for nutrition in national budgets is undertaken or even possible, and distinct budget lines and allocations may not exist; donor funding is limited in some countries in the region.

- **Difficulty in the prioritization of nutrition interventions** according to the specific contexts, as well as adaptation of the delivery modalities and communication and advocacy materials.

- **Lack of recent data** on nutrition status and interventions limits the potential for advocacy and for addressing programmatic and system bottlenecks.

- **Lack of integration of certain nutrition supplies** in essential medicines lists and supply chains.

- **Lack of skilled staff**: both the technical nutrition staff to support the design, integration, implementation, and supervision of nutrition interventions, and the skilled frontline workers in facilities and communities to deliver them.

- **Lack of attention to “demand” side barriers**: for example the low utilization or compliance with iron folic acid supplementation or the low levels of adoption of optimal breastfeeding practices; low prioritization for “soft” issues in health services such as counselling, communication and social mobilization.

- **Gaps in identifying and integrating a core set of maternal and child nutrition indicators for effective nutrition outcomes**, as appropriate for each context, is a challenge. Process indicators are particularly important to monitor for assessment of implementation quality and to measure progress of intermediate outcomes more frequently. While anthropometric indicators are useful for impact analysis, most are not fast changing enough for use as monitoring indicators.

**Nutrition interventions along the continuum of care within health services**

The essential nutrition-specific interventions of the packages that are delivered in the health system may be represented along the continuum of care by life cycle stage, which may help to ensure that the target groups at each stage of the life cycle receive all of the essential services they need (see Figure 1). The figure also gives an example how they may be integrated within essential health services and contacts on the continuum.

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Facility-based services

Full integration of applicable nutrition services within the facility-based health services and contacts shown in the figure above requires determination of the requirements and structures (e.g. skilled staff, job descriptions, work structures, space, client flow, time, supplies, tools and job aids, recording formats, reporting) to deliver and monitor the nutrition services, and thorough assessment of the existing status of those requirements so that necessary adjustments can be made.

A few examples of common scenarios regarding the current status of selected nutrition interventions are discussed below. For infant and young child feeding (IYCF) counselling, at present in many countries there may be a cohort of staff trained on IYCF or there may be various externally supported efforts in selected areas to support implementation on a project basis. However IYCF counselling is often not a nationwide, routine service incorporated into curricula or education systems, mandated in all facilities, or required to be reported on. Health providers often simply state they do not have...
time to counsel mothers, even if they have the skills to do so (which many do not). Therefore in order to institutionalize counselling as a routine, mandatory service within maternity care and PHC services and contacts for mothers and infants, all of the above considerations need to be carefully addressed and necessary adjustments built in so that the service can be optimally integrated and achieve the same non-negotiable delivery status as other routine services such as immunization, for example.

Training on IYCF counselling needs to be integrated in pre-service medical and nursing education as well as in-service training programmes, and needs to follow best practices for building skills on counselling. These skills cannot be transferred through a one or two day training – five days is considered the minimum, as per the WHO-UNICEF Integrated IYCF Counseling Course. Follow up, mentoring and supervision after training is essential.

The BFHI is often supported by UNICEF in countries as a voluntary, hospital-by-hospital vertical initiative that health facilities can opt to join or not and where certification is done by an NGO. But this rarely works effectively, i.e. it is not sustainable or scaleable. UNICEF needs to advocate with the Ministry of Health to make BFHI steps standard practice in health facility management in the whole country. This means making the 10 steps of BFHI part of the normal code of practice in the health system including in the relevant curricula and in health facility standards and operating procedures, as well the legal responsibility of health facility management. At this time, Mexico and Vietnam are among the first countries that have mandated that the 10 steps be included as part of overall hospital quality criteria and certification and recertification processes. However, as it has just been implemented the impact on early initiation and exclusive breastfeeding is yet to be shown.

Regarding the health system delivery of the management of severe acute malnutrition included in the Core Package for all countries, it is emphasized that this does not solely imply inpatient treatment. This would mean taking the management of SAM many steps backwards and would not be in accordance with the latest WHO guidance. Rather, it requires inpatient management for the first phase of treatment for complicated cases while phase 2 has the non-complicated cases treated as outpatients at health facilities using ready to use therapeutic food (RUTF). The management of SAM in the context of the Core Package does not necessarily involve active case finding, follow up, and community mobilization through community-based programmes as per CMAM programmes in areas of high prevalence of SAM or in emergencies.

For settings requiring services for the management of severe acute malnutrition, its introduction as a new service in the health system should be fully integrated from the outset, rather than the parallel approach often taken in many countries. The management of SAM needs to be promoted as a routine service rather than a service delivered only in situations of emergency. The therapeutic milks, RUTF and other supplies need to be included in essential drugs or supplies lists and adequately budgeted for. The training of staff needs to be incorporated in medical and nursing pre-service education and in-service training programmes, and needs to be based on the most recent WHO guidelines.

The centres providing inpatient stabilization need to have highly appropriate structures for screening, admission, referral, treatment and follow up of the SAM cases need to be established. Core indicators of the coverage and quality of treatment need to be integrated into routine information systems.

For the delivery of certain micronutrient supplementation programmes, where there are existing vertical micro-planning, training, tallying and information systems, need to be incorporated within health systems. The micronutrient supplements need to be included in essential drugs or supplies lists, adequately budgeted for and coverage monitoring included in routine information systems. The delivery of multiple micronutrient powders should be combined with IYCF counselling services wherever possible.

The delivery of an expanded package of maternal nutrition interventions through the ante-natal care service should be standardized and strengthened in health systems. In many countries, the only nutrition intervention provided is iron-folate supplementation, and even this intervention faces many bottlenecks, including stockouts, low staff training, poor demand and compliance for women, and poor monitoring. The other recommended direct nutrition interventions need to become an integral part of the routine of ante-natal care, including deworming, monitoring weight and weight gain, dietary advice, screening for underweight and provision of appropriate counselling and supplements, and screening for overweight or excess weight gain and provision of counselling.

**Outreach and schedulable preventive services**

In urban areas the proximity of the health facility may permit high coverage of periodic nutrition contacts for mothers and infants, but in rural areas the health facility may be two to three hours away, making high coverage difficult to achieve. In these situations, facilities should arrange for health staff to make outreach visits to communities, perhaps even monthly, in order to facilitate more regular antenatal and child services to be delivered. Selected nutrition services such as provision of Vitamin A, deworming, MNPs and IFA, MUAC screening and IYCF counselling may be integrated with applicable health services such as immunization and antenatal care. All of this depends, of course, on the availability of designated staff to be away from the clinic for several hours each day, as well as transport.

An alternative form of outreach for certain interventions may also be organized in settings with very weak health systems and low coverage of all services through national mass mobilization periodically, in the form of bi-annual events, such as Child Health Days (CHDs), whereby all children under five are targeted for immunization as appropriate, as well as giving them vitamin A capsules, deworming treatments, information messages and in some instances MNPs or MUAC screening for SAM if warranted. A limitation of child health days is that meaningful counselling on breastfeeding or complementary feeding for example, is generally not possible, and for this reason not the best way to distribute MNPs.

**Family and community care**

The family and community care delivery platform may be a part of the health service extension mechanism in settings where the reach of health facilities or outreach leaves out significant areas or groups or where health systems are weak. This platform may still be relevant in some areas of a few of the countries in the EAP region. The UNICEF global approach specific objective number 5 is to “create an environment and adopt a community-centred participatory approach that will enable communities to have their knowledge and tools to address their own malnutrition issues.”
Well-run community-based nutrition programmes costing households between $5 and $10 a year can achieve an additional annual reduction of child underweight rates of -1.5ppts a year above that already occurring due to socio-economic development.\(^{130}\) Community-based programmes have also been shown to impact coverage of micronutrient supplements as well as improvements in maternal anaemia rates\(^{131}\) and to improve breastfeeding rates. A systematic review of studies on the effect of community-based breastfeeding support showed that early initiation and exclusive breastfeeding were responsive to community-based efforts.\(^{132}\)

The extension of these nutrition and health service interventions into the community usually relies on the work of community health workers (CHW). How these CHWs are organized and supported can vary enormously, from being facility-based to community-based, as well as from being staffed by volunteers (unpaid) to being paid a stipend. In some instances community-based nutrition services are supported mainly by NGOs, sometimes in an ad hoc manner with little national oversight or mapping, while in others the Ministry of Health delivers community health extension services nationally with a salaried human resource structure and a standard curriculum and management system is applied.

A global analysis of the work of CHWs reveals that they provide a critical link between communities and their health and social services systems.\(^{133}\) Furthermore the review found that the existing studies of CHWs lacked detail and consistency of content, and few of the studies were done ‘at scale’. The review recommended that community-based programmes should be inserted into the wider health system, and CHWs included in health system human resource planning. The CHWs typically receive some locally organized cascade training in order to be able to carry out their work, but there is no national or international standard. Perhaps the most difficult part of these community-based programmes is ensuring the on-going supportive supervision of the CHWs by health staff that facilitate their work.\(^{134}\) Establishing and scaling up community-based health and nutrition programmes requires going beyond facility-based health systems. It is thus quite management-intensive and requires staff working full time supporting this community-based function. NGO support may be crucial to ensure the effective functioning of community-based programmes, but this needs to be carefully and sensitively designed and negotiated in some countries.

Nutrition activities carried out by community-based programmes may include counselling on maternal, infant and young child feeding practices. CHWs are trained on counselling skills\(^{135}\) and need to receive regular mentoring and supervision. Community-based services also appear to offer a good opportunity for social and behaviour change communication\(^{136}\) (SBCC – also referred to as Communication

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134 UNICEF Community IYCF Counselling Package: Supportive Supervision/Mentoring and Monitoring Community IYCF. New York: UNICEF 2012.
135 UNICEF published a comprehensive package for community based IYCF counseling, including training materials designed for frontline and low literacy workers. It is available at http://www.unicef.org/nutrition/index_58362.html
for Development – C4D - in UNICEF), utilizing well-researched messages, interactive communication methods and community mobilization based on formative research on social norms, socio-cultural attitudes, beliefs and barriers and the social structures and communication channels in the communities.

Distribution of micronutrient supplements (e.g. multiple micronutrients) and treatment (e.g. zinc for diarrhoea) and MNPs for home fortification products may also be carried out through community-based programmes, as well as screening for acute malnutrition in areas of higher prevalence, as per the criteria for the Acute Malnutrition Package referenced in this regional approach.

With regard to growth monitoring and promotion (GMP), it is recognized that growth monitoring on its own was not listed by the Lancet as an effective intervention with any impact on nutrition status, but if it is already in place and functions well at the community level, it may be a platform for the delivery of nutrition interventions such as IYCF counselling and MNP distribution.137

The community-based delivery platform will also provide opportunities for delivering some of the nutrition sensitive interventions in the Core Package such as hand washing counselling, possibly social transfers with nutrition counselling, support for early childhood education and interventions to reduce tobacco consumption and indoor air-pollution. They may also be suitable for some of the nutrition sensitive interventions from the optional packages, such as the food security or teenage pregnancy interventions.138

Managing the delivery of health sector nutrition interventions

As has been noted in the section on “Country level policy and programme development” and the discussion on “Taking Stock,” it is important for countries to have a strong technical nutrition unit in the Ministry of Health. A “strong unit” implies staff with comprehensive technical nutrition knowledge and skills, capacities for policy advocacy, design, planning, oversight of implementation and monitoring, analysis and coordination/convening. It needs to be adequately resourced financially and have decision space. The nutrition unit has to be strong so that it can have oversight over province/district implementation and help create, where necessary, the function and responsibilities of the province/district nutrition officer/focal point. In some countries there are National Nutrition Institutes but these are often primarily concerned with carrying out nutrition research, and at most, setting policy. In order to be able to command down to the district level and ensure the proper management of nutrition interventions, the central nutrition unit must have sufficient hierarchical status as well as adequate numbers of skilled staff. In most LMICs this key aspect of the enabling environment for nutrition at national and decentralized levels needs to be analysed, gaps and constraints identified, and the capacities and functioning of the nutrition units needs to be built, as part of system building and capacity development needed to scale up nutrition specific interventions, for which UNICEF can potentially play a pivotal role with its advocacy and programme support.

Ensuring the implementation of all these nutrition interventions within the various health and nutrition packages through the health sector requires that somebody be in charge of nutrition, at least at district level. Several responsibilities

137 Mangasaryan et al. Revisiting the concept of growth monitoring and its possible role in community-based nutrition programs. FNB 2011.
of this person are discussed below. However, district level officers seldom have the time or capacity to undertake all the tasks listed. This capacity issue is discussed further below.

**Targeting and prioritization** of interventions are important responsibilities of the national and district nutrition management function. Targeting of nutrition interventions is not only in order to ensure equity but also to prioritize use of scarce government resources. Targeting may involve directing efforts at the lower socio-economic communities, hard to reach/remote geographic areas, excluded and marginalized groups, biologically vulnerable groups, seasonally affected populations etc. The EAP region contains a wide range of disparities and vulnerabilities, which the situation analysis needs to thoroughly assess in order for appropriate targeting and prioritization modalities to be effectuated. Targeting also requires analysing implementation status and coverage of nutrition interventions, in order to be able to ensure that the most vulnerable are adequately covered. Individuals who have not been reached by routine services may also need to be targeted for special ‘mopping up’ services.

In order to decide how each of nutrition specific interventions listed in the Core Package can be taken to scale, the systems, and **method of delivery** need to be considered. Whether they can be expanded by explosion or by linear association or by gradual increments will depend on the capacity available to manage such efforts, especially at the district level. Most of the clinical care service delivery packages can be scaled up rapidly, as long as there are health clinics with adequate human resources to scale up through. Those interventions requiring periodic outreach into the community (e.g. every six months) can be achieved by holding child health days for example, and can also be rapidly scaled up. Interventions requiring more frequent and regular community-based delivery need to be built more gradually, again depending on the managerial capacity available at the district level and below.\(^{139}\)

Developing a district nutrition **communication plan** is another responsibility of the district nutrition focal person. The plan needs to fit with the national social and behaviour change communication strategy, if already existing. In most places there are many communication channels available, including local radio, cell phones, the internet, and television, as well as local drama groups, and interpersonal and group communication. Formative research can help identify which communication channels are the best to use based on the group to target, the issue to tackle or message to convey, etc. Formative research needs to explore the underlying social norms, socio-cultural practices and attitudes that play a pivotal role in mediating demand for nutrition services and adoption of recommended practices. The communication strategy needs to be developed based on the results of this formative research, and may encompass advocacy, social mobilization and facilitation of social change related to social norms which do not favour optimal nutrition practices, information dissemination on where and when health and nutrition services will be available and/or delivered and communication of important messages about specific behaviours to be adopted or promote the consumption of specific food items on sale in the local community, such as micronutrient powders for fortifying complementary foods or iodised salt, for example. Deciding which messages to promote and when, and ensuring their wide scale dissemination in local media is the essence of the communication plan that needs to be developed, financed as appropriate and put into operation and monitored.

\(^{139}\) An excellent resource in this whole subject is the textbook entitled Nutrition Essentials: A guide for health managers. (http://www.basics.org/documents/pdf/NutritionEssentials_English.pdf) It was developed for district health officials, and describes the priority nutrition interventions in health, how to develop a district plan, as well the technical guidelines and protocols that need integrating into the various parts of the health service, including how to forge community partnerships. Although it predates the SUN/CIP era, and so needs updating with regard to the Core Package of interventions, as well as the continuum of care, it is still remarkably relevant.
Monitoring of interventions

The health system must have the **capacity to measure malnutrition**, involving appropriate systems for data collection, staff technical capacity, and necessary equipment. All health centres should have equipment for measuring blood haemoglobin, for instance. The WHO recommendation is to provide all pregnant and lactating women in all areas with daily iron and folic acid supplements (30mg); however women with severe anaemia should receive a higher dose supplement (60mg), as should all women in areas with anaemia prevalence over 40%. It is thus necessary to be able to measure haemoglobin levels in pregnant women.

Adequate equipment to weigh and measure children and conduct MUAC screening, as well as weight gain of women during pregnancy, requires scales and length/height measurement tools, as well as MUAC tapes and appropriate growth charts, and these need to be available and working both in facility-based and outreach-based service delivery.

Another critical function is the measurement of key **process and performance indicators related to nutrition interventions**, often a missing aspect, poorly conducted or using parallel information systems not integrated within the health system. For example, few health management information systems incorporate the treatment of SAM, vitamin A supplementation, or MNP coverage data, which often have parallel information systems. Process indicators are rarely documented routinely; these may include stock-outs of nutrition supplies, the geographic scale of services – the proportion of facilities regularly providing the service through skilled and trained staff; and the population coverage of certain services such as counselling on maternal and infant nutrition.

Infant and young child feeding interventions are the least monitored in routine systems; this may contribute to lowering the value these interventions are perceived to have and a lower compliance with recommended provision modalities and quality of services. Being behavioural, it is acknowledged that certain aspects of the pathways to adoption of the recommended IYCF practices cannot be assessed through routine information systems and additional data may need to be periodically collected to assess whether the interventions are being delivered with adequate quality and whether they are resulting in a shift in social norms and socio-cultural barriers, attitudes and knowledge. It is important to measure intermediate outcomes in changing behaviours in order to ensure programmes are on the right track and are using appropriate theories of change and approaches.

For complementary feeding, it must also be acknowledged that in certain settings and circumstances the desired outcome (an increase in the proportion of children who receive the minimum acceptable diet) the pathways are not only behavioural aspects addressed through counselling and communication but also relate to improving access and availability of food suitable for small children through interventions in multiple sectors. Information on all of these interventions must be compiled and analysed to measure the performance of strategies to improve complementary feeding, one of the most neglected areas of nutrition. An assessment of existing nutrition intervention indicators being measured and the systems and tools to collect and manage the information, as well as how the information is used, should be conducted. The identified gaps can then be addressed, the full set of nutrition intervention indicators integrated in the health management information system, and measures to strengthen the quality, flow, and use of data applied.
The strengthening of nutrition information systems should be targeted towards helping the nutrition manager in **identifying bottlenecks and barriers** at the local level that are limiting the delivery of key interventions, and using the information to develop strategies and plans to address them. This process should first and foremost use available routine data, and thus the modification and improvement of nutrition information systems described above should be designed in such a way that it is fit for this purpose. A first step is to understand whether these are supply, demand, quality, or enabling environment related problems (or a combination of them). The causes of each major identified bottleneck are explored, feasible solutions prioritized and the actions to implement the solutions and track progress with reducing the bottlenecks are integrated into the annual district plans. This is discussed further in the section on monitoring and evaluation.

**Preparing for and managing nutrition in emergencies**

Given that many countries in the region are prone to emergencies, some having a series of disasters each year, the national and local level management of nutrition in emergencies, from preparedness, response design, planning, implementation, coordination and monitoring, to post-disaster recovery and building of strengthened resilience to shocks, forms an important component of the nutrition portfolio in the health sector in particular, but also closely linked to resilience building efforts in the WASH, social protection and agriculture sectors. UNICEF’s nutrition staff have a key role in strengthening capacity for and supporting all aspects of nutrition emergency preparedness and response at national and local levels, and their own capacity to fulfil this role needs to be mainstreamed in all programme countries.

**Delivery of nutrition sensitive interventions through other sectors and platforms**

As discussed in Chapter 5, evidence on the impact of nutrition sensitive interventions is, to-date, limited and global guidance remains vague. The volume of work has been greater for the social protection sector, but the other sectors that will also be considered here include agriculture, education, water and sanitation, legislative, regulatory and standards-setting and enforcing bodies and local government. While the latter is not strictly a sector it is increasingly responsible for coordinating and pulling together of the work of the various sectors at sub-national level, and even for implementation in countries with highly decentralized administrations. The private sector is also considered. This chapter addresses the nutrition-sensitive interventions of the seven packages outlined in Chapter 5 and outlines the possible specific roles of UNICEF in the following:

i. Water and Sanitation

ii. Agriculture

iii. Education (including early childhood development)

iv. Social protection

v. Local government

vi. Legislative, regulatory and standards-setting and enforcing bodies

vii. Private sector
Water and Sanitation

Package for Water and Sanitation

1. Communication on hand washing with soap
2. Communication on the safe disposal of faeces, especially children’s faeces
3. Elimination of open defecation and increased access to sanitation
4. Facilitate access to water for hand washing and hygiene practices, as well as clean drinking water

As discussed in Chapter 6, increasing access to clean water and sanitation is considered sufficiently important for nutrition that the Water and Sanitation Package is recommended for all countries. Efforts to design, plan and implement the Water and Sanitation Package in a manner that is integrated and convergent with the packages of direct nutrition interventions can be guided by global frameworks such as the joint UNICEF-WHO-USAID “Integrating Water, Sanitation and Hygiene into Nutrition Programs” (forthcoming).

Of all the water and sanitation interventions, those that prevent faecal ingestion are the most important, such that the package includes hand washing interventions and those that address the disposal of faeces or initiatives to make communities “defecation free”. Thus a new programme called Community-Led Total Sanitation (CLTS) has been developed. Through CLTS, communities are facilitated to conduct their own appraisal and analysis of open defecation and take their own action to become open defecation free (ODF).

UNICEF’s role is already strong in the Water and Sanitation field where it advocates and provides technical leadership to help policy development and the shaping of programme agendas. In a few countries, it was even agreed to use nutrition outcomes as an impact indicator of WASH interventions. While the CLTS is not primarily focused on nutrition, with UNICEF advocacy this is an easy addition and gives an extra incentive for achieving ODF status and can be done at scale quite quickly in a top down fashion. The challenge is bringing CLTS and community-based nutrition programmes together both at the national and sub-national design and planning stages and at the community level implementation stage in a logical and reinforcing fashion, UNICEF’s own WASH and nutrition programmes often do not converge: one set of districts has WASH programmes while different districts implement nutrition programmes. UNICEF needs to ensure better convergence in its own programme design and planning, but also promote it widely among governments and other stakeholders. UNICEF can play a vital role helping to fund, manage and enable these more “joined up” efforts in a few selected districts to begin, before scaling up gradually.
Agriculture

Interventions in the Food Insecurity Package
- Facilitate the establishment of a nutrition surveillance system, coordinated between government and partner agencies
- Diversify production and livelihoods for improved food access and dietary diversification
- Increase production of nutrient-dense food – horticultural crops, animal source foods, underutilized local foods, legumes
- Reduce post-harvest losses and improve processing
- Increase market access and opportunities

Interventions in the Package for Child and/or Women Overweight and Obesity
- Improve access to fruits and vegetables through farmer incentives, improved distribution systems, subsidies etc.

The Food Insecurity Package described in Chapter 6 is primarily concerned with improving the access of poor and vulnerable households to nutritious foods through improving household production, reducing post-harvest losses and improving access to local markets (although it also includes two direct nutrition interventions not related to the agriculture sector – providing food supplements to women and children, which may be delivered through the health system, through a temporary emergency distribution system or through NGOs). These interventions should be implemented with a crosscutting principal of empowerment of women, which has been shown to be key in ensuring that agricultural interventions have nutritional outcomes.140

As making agriculture interventions nutrition sensitive involves working with vulnerable families, it will be necessary to work with the agriculture extension services. In reality however most of these extension services are incredibly over-stretched trying to increase the production of foods. In addition to which, most extension worker training has almost no nutrition content. So implementing activities in this area might have to be done using local NGO organizations in the short term.

All in all, the potential of agricultural interventions to improve the nutritional status of poor mothers and children in LMICs looks very promising. In order to scale these sorts of interventions up, however, looks quite complicated. It will require considerable investment in staff, supplies, and training and will need to be implemented by agriculture extension and nutrition extension staff, collaborating together, recognizing that both these cadres are already over-stretched, if they exist at all. Scaling up should therefore only be done by incremental expansion and initial models will likely need to be developed and documented by NGOs.

The role of UNICEF in the development of nutrition sensitive interventions in the agricultural sector is likely to be more in the area of advocate and convener (alongside the FAO) than implementer. Because of women’s role in agriculture, UNICEF can advocate to ensure that agricultural policies help reduce work load and time demands on women, which in turn can have a positive impact on women and children’s nutritional status.141 In addition, there is often a disconnect between nutrition and food security at national levels, with

difficulties of overlapping mandates and lack of conceptual clarity that UNICEF can help define and smooth over. Technical facilitation of the government bodies involved will most likely be led by FAO and/or WFP. Financial support for the development of such interventions will likely be forthcoming from USAID through its Feed the Future work. UNICEF may also advocate that the nutrition programmes at community level in rural areas supported by its NGO partners include a component of increasing the household production and consumption of diversified foods and nutrient-dense foods, including animal source foods for priority groups such as pregnant and lactating women and young children, for example through gardens and small animal husbandry. UNICEF may also advocate for approaches to increase availability and access to vegetables and fruits, as part of strategies to reduce overweight and obesity.

Results need to be carefully documented to improve the evidence base and provide guidance on implementation and monitoring models. At the same time, UNICEF may use coordination forums and other channels to advocate for a wider set of civil society nutrition partners to do this, and also for partners supporting agriculture to integrate aspects of nutrition education.

**Education and Early Childhood Development**

*Education/Early Childhood Development interventions in the Core Package*

- Increased access of girls to primary and secondary education
- Early childhood development/

While it is recognized that nutrition interventions through schools will have a limited impact on child undernutrition from the perspective of addressing maternal and child undernutrition during the ‘window of opportunity’, there are many interventions that are implemented through the education sector that will have an impact on nutrition, as reflected in several of the Packages of this regional approach.

The **Core Package** includes the nutrition sensitive intervention of “Increased access of girls to primary and secondary education” due to the recognition that overall maternal education is a strong predictor of better child nutrition. In addition, keeping girls in schools can help in the prevention of early pregnancy and low birth weight. Further, women’s empowerment linked to both improved female education status and improved socio-economic status has been shown to be positively associated with improved child nutrition status,142 and therefore the promotion of girls’ education in and of itself has an impact on nutrition.

The Core Package also includes the intervention of “intermittent (weekly) iron folate supplementation of reproduction age women. Girls, from the ages of about 15 to 18, who may make up a significant proportion of reproductive age women in some countries, can be reached through secondary schools with this intervention as they are in India. The programme is now being implemented countrywide and by end 2011 it was reaching 27.6 million adolescents girls with IFA and deworming tablets in 13 states (16.3 million of those girls were in school and 11.3 million were out of school).143 Older women will need to be reached through other avenues.

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Another intervention in the Core Package is “early childhood education” which may or may not be provided by the formal education system. In Nepal, early child development (ECD) programming has made remarkable advances in the last decades, and the primary focus in scaling up ECD activities has been on community centre-based ECD. ECD facilitators are the teachers/caregivers who staff ECD centres, which are essentially preschool classrooms. Community-based centres are often located near a public school but may also be stand-alone facilities in communities that do not have a primary school. Each ECD centre is staffed by one or two ECD facilitators, with a total of some 50,000 facilitators, are usually young women, who provide care and instruction for as many as 25 children in the centre. Evaluations of such ECD approaches in Indonesia have shown that ECD projects had larger effects on child development outcomes in children from poorer families. The pursuit of greater convergence/integration in the design and planning of ECD and nutrition interventions is needed.

As noted in Chapter 6, several of the interventions of the Overweight and Obesity Package are school-based interventions and one intervention of the Teenage Pregnancy Package are school-based interventions and one intervention of the Teenage Pregnancy Package needs to be implemented in all schools.

Interventions in the Child and/or Women Overweight and Obesity Package

- Provision of healthy foods in schools and pre-schools
- Nutrition and physical activity education in school
- Promotion and provision of daily physical exercise in school
- Legislation to ensure no vending machines or junk food sales in and around schools

Intervention in the Teenage Pregnancy Package

- Improve access to formal and non-formal education for adolescent girls, including access to reproductive health information and education

Any intervention in the educational sector will need changes to policies and procedures about how schools and ECD centres are run and organized as well as considerable training of teachers in order for them to be able to be the main drivers of change. In the short term this can be achieved by hiring local NGOs to do the necessary training. The interventions will need to be taken to scale by expansion, gradually building up the number of schools and districts that deliver nutrition sensitive interventions. These will have an impact on both over and undernutrition, with the greatest potential impact in the short term on overnutrition, while the impact on undernutrition should be seen more in the medium to long term.

The role of UNICEF in developing nutrition sensitive interventions through the education sector is likely to be an important one, conducting advocacy with higher echelons of the Education sector, as well as directly helping the government manage the development of such programmes in pilot areas. UNICEF also has a role in ensuring the bi-directional integration of nutrition and ECD, within its own supported programmes and promoting this at the national level, for the mutual benefit of both areas.

The Core Package includes the nutrition sensitive intervention of “Social transfers with nutrition counselling targeted at the nutritionally at-risk” since growing evidence that social transfers, in particular cash transfers, both conditional and unconditional, have resulted in improvements in nutrition. Social transfers impact nutrition by providing cash or other resources for improved nutrition, by supporting and establishing conditionalities such as attendance at nutrition services and by integrating nutrition policy, objectives, indicators and services within social protection programmes. Lessons learnt from global social transfer programmes emphasize the importance of careful design and targeting as discussed in the Technical Supplement. Countries that are considering starting a social transfer programme should review all options and lessons learnt and design the programme taking into consideration capacities for targeting, the strength of the health system and nutrition services, dietary needs and gaps in the current diet and causes of undernutrition.

The role of UNICEF in developing nutrition sensitive interventions through the social welfare sector is again likely to be an important one, both for conducting advocacy with higher echelons of the sector for inclusion of nutrition indicator outcomes for example, as well as directly helping the government manage the development of such programmes in pilot areas. If the social transfers (cash or in-kind) have conditionality, such as children’s schooling and/or mother and child attendance at health facilities or nutrition education sessions, this will require simultaneously working with these other sectors. Minimally, bureaucratic mechanisms need to be created both for the transfer as well as for ensuring conditionality, and the service delivery channel needs to be working adequately (e.g. health facilities that are Baby Friendly, adequately promoting IYCF or delivering micronutrient supplements). Such complex multi-sectoral approaches require significant managerial support to begin with, and should be scaled up incrementally after testing the model in a few pilot districts. UNICEF is ideally placed to provide support for this, by creating the enabling programme environment through links it already has with these sectors, as well helping to develop the programme strategies and fund the implementation in the initial model districts.

Local Government

Although this is not strictly a sector, because of the increasingly decentralized nature of government in many developing countries, working with local government authorities has become increasingly important in terms of scaling up interventions. In many countries, it is the Ministry of the Interior, or the Ministry of Home Affairs that is in charge of the sub-national government, and this Ministry can direct and guide the municipalities and districts that are administratively responsible for the delivery of social services. The role of the central sectors (e.g. Health, WASH, Education, Social Welfare, Agriculture) then becomes one of developing policy and programme guidance, of setting service delivery standards, and of monitoring and evaluating the quality of services being delivered.

For the scaling up of nutrition interventions, district/provincial governments will need a local nutrition plan, with activities and budget. For
that purpose a local government nutrition officer may be needed, above and beyond the health sector district person. While the health sector district person is charged with managing all nutrition-specific interventions delivered through the health facilities in a top down fashion, the local government district nutrition officer is responsible for the bottom up development of an integrated package of nutrition sensitive interventions. Such ideas are being considered in the development of the Multi-sectoral Nutrition Plan in Nepal, where nutrition specific interventions are being scaled up top down by explosion in many districts through the health sector, while for other sectors (agriculture, education, social welfare and WASH) activities are being scaled up in an integrated fashion by gradual expansion in a few selected districts initially. The district nutrition officer will need training in public nutrition and will look after the management of the community-based nutrition activities. The community outreach of such a system is not single-sector, but multi-sector, which for the community can have many advantages, with all service delivery mechanisms coming to the community on the same day for example, thus limiting the time burden on the community workers, as well as the families being reached. In addition to the development of the district nutrition plan, the sectors at the central level need to develop guidelines on how to achieve such plans from the bottom up, in order to receive central level funding through the local government channel.

The role of UNICEF Country Offices in helping the development of nutrition sensitive interventions is perhaps one of the most critical. Many of the other donor and agency partners will be able to assist with the scaling up of the nutrition specific interventions through the health and agriculture sectors. UNICEF has a unique advantage in that it is not tied to any one sector, and is often already working through its country programme with, most if not all of, the sectors that should be implementing the nutrition sensitive interventions. Although most of these sectors are likely to be already involved in many of the various interventions, they are unlikely to be looking to show nutrition impact. The potential for UNICEF to work through its existing country programme and sensitize the various sectors and advocate for the importance of these nutrition outcomes seems paramount.

The need in most countries is to build experience in developing these nutrition sensitive programmes and to show that they have an impact. This means developing pilot projects together with counterparts, and learning how to do it so that they can be taken to scale. As described above for each of the nutrition sensitive areas of intervention the development of these models will be management intensive and require careful nurturing. Going to scale must be by gradual expansion. The UNICEF country programme can facilitate this, and programme officers enable the development of these models by district officials, serving as both managers of these projects while developing the counterpart capacity to carry the models forward. The biggest challenge comes when trying to develop nutrition sensitive interventions in a coordinated fashion in the same district. UNICEF has a history and tradition of developing what were called area-based “basic service” approaches which should surely be drawn upon. These were concerned with the integrated development of social welfare, water and sanitation and primary health care in urban areas especially during the nineties. Basic services approaches facilitated the work of communities to develop plans to resolve problems in these service delivery areas, together with the provision of block grants for them to implement their plans.


Some of the direct nutrition interventions in the Core Package primarily involve the private sector, e.g. *food fortification*, including salt iodization and wheat flour and rice fortification. These interventions also involve public sector bodies that develop and enforce legislation and associated regulations and standards (see the next section below. It is noted that the private sector should not be involved in any of the processes to develop and enforce legislation, regulations and standards). Local production and marketing of *specialized fortified foods*, micronutrient supplements and other products (in accordance with the International Code or national Code legislation whichever is stronger), is another area of private sector collaboration, as is *social marketing and communication* on nutrition and corporate social responsibility and other initiatives to promote mother-baby friendly *workplaces* and encourage healthy eating and exercise through workplaces.

Justifications for food fortification are widely accepted by the public sector. Food fortification has long been recognized as an effective and highly cost efficient intervention for reducing micronutrient malnutrition.\(^{148}\) A specific advantage of food fortification is that it can increase micronutrient intakes to large segments of the population at very low cost without requiring radical changes in food consumption patterns.\(^{149}\) The World Bank and the Copenhagen Consensus have identified bundled micronutrient interventions to fight hunger and improve education worthy of investment. This includes universal fortification of relevant staple foods and condiments, which are highly cost effective. For every United States (US) dollar spent on fortification of staple foods or condiments, it has been estimated that there may be cost savings of US$7.8 to $81 depending on the details of the fortification programme.\(^{150}\) The savings come through a combination of reductions of morbidity or mortality, increased work productivity or educational attainment, or averted healthcare expenditures. For the private sector, there is a business case for food fortification: products with high nutritional content can enhance brand value, increase profitability as market expands, and contribute to development of healthy and productive labour force in low income communities.


\(^{149}\) WHO and FAO. Guidelines on food fortification with micronutrients. WHO and FAO. 2006.

However, in most instances, costs incurred from food fortification limit fortification to higher-end products for the niche market, and universal fortification of staple foods consumed by the general public and those most likely to have nutritional deficiency, is seldom implemented at scale on a voluntary basis by food producers. Hence, successful universal fortification programmes with broad public health benefit require a partnership between the public and private sector. The necessary role of governments is to create an even playing field to ensure that fortification does not render a company uncompetitive, and to enforce and oversee adherence to legislation for mandatory fortification and minimum standards. Under such conditions the private sector can then produce quality, fortified products with minimal additional cost to the consumer while maintaining necessary profit margins. In some countries governments provide further incentives (e.g. tax exemption for fortificant or fortification equipment) and communication on the availability and benefits of fortified food.

Global experience has demonstrated the public health impact of mandatory food fortification programmes (e.g. impact of iodized salt on iodine status and of folic acid-fortified wheat flour on reduction of neural tube defects). High coverage with fortified foods and public health impacts have not been achieved when the national government has not passed and enforced legislation for mandatory fortification, except in conditions where all of the food vehicle is supplied by only one or two producers. Potential achievement of mandatory food fortification is often constrained by weak and insufficient monitoring and enforcement of the legislation and national standards however.

In several countries the entry point for fortified rice has been social safety net programmes for vulnerable groups, emergency distribution or school feeding programmes.

The Food Insecurity Package, for situations with low food availability or access, includes interventions to provide specialized fortified foods to selected groups such as children 6-23 months and pregnant and lactating women. These foods may be manufactured locally according to appropriate Codex standards and purchased by the Government and/or its partners for distribution in kind to vulnerable groups (social safety net programmes). Voucher systems may also be implemented for such specialized foods, so long as the market carries the products. The same foods may also be marketed through social or commercial marketing to the wider population. Programmes for distribution in kind for these population groups need to be well-integrated with nutrition counselling and communication on maternal nutrition and IYCF for mothers and caregivers.

The role of the UNICEF Country Office in mandatory food fortification is in advocating for and supporting the assessment of the feasibility of mandatory food fortification and the identification of appropriate food vehicles. It is also in facilitating the dialogue between government, the private sector, and other relevant stakeholders, such as consumer groups, academics, and public health advocates, to gather necessary information and address concerns from all sides. Governments often raise concerns about the safety of food fortification and the consumers’ right to choice and the private sector is reluctant to take on the costs of fortification without the assurance of

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153 Blencowe et al. Folic acid to reduce neonatal mortality from neural tube defects.
156 Refer to note “154” above.
government that fortification requirements will be evenly enforced across all players. UNICEF is also well placed to support governments in establishing appropriate national standards and legislation based on existing global recommendations and guidance. For both governments and the private sector, voluntary fortification is an attractive option, as it does not require either to do anything; UNICEF’s role is to explain that, except in unique conditions, voluntary fortification is unlikely to have a significant public health impact.

UNICEF’s role in the production and distribution of specialized foods may include contributing to policy discussions on local production, product specifications and standards together with the nutrition departments other relevant Government authorities and technical partners. This may go beyond the specialized complementary foods and maternal supplements and may also include RUTF, MNPs, zinc and other products for distribution within the health system. It can include technical support to the Government for the design and targeting, planning, forecasting, budgeting, monitoring framework and implementation of social safety net programmes. Solid supply forecasting is essential for the private sector partners who manufacture the products.

In exceptional cases UNICEF may also purchase these local products, as a provider of last resort where there is no Government or partner agency able to do this. This role is more often fulfilled by WFP where they are present in a country. Regardless of whether UNICEF itself, WFP, NGOs or the Government take primary responsibility in the distribution of these products, UNICEF has a strong advocacy role in ensuring that counselling and communication on maternal nutrition and IYCF is well-integrated in the distribution programmes, and may support the development of materials, training and implementation.

UNICEF may also partner with Code-compliant companies or NGOs in the social marketing of fortified complementary foods in terms of information and messages on the use of the products and healthy nutrition.

Similarly, UNICEF’s role in partnering with appropriate private sector companies engaged in social marketing, communication for social and behaviour change and advocacy may include technical inputs in the conceptualization and design of the market and formative research, the messages and information, the monitoring of the execution and impact of the marketing and communication activities and leveraging of private sector networks (e.g. cellphone companies, broadcast media and internet) as well as social media for disseminating nutrition messages, engaging in dialogue and advocacy and other communication activities. UNICEF has also partnered with cellphone and related companies for more efficient dissemination and collection of programme information (e.g. RapidSMS for growth monitoring and SAM treatment157).

Further, an emerging area of private sector engagement is the promotion of mother-baby friendly workplaces, particularly in relation to support for breastfeeding – such as the 10m² workplace/public place initiative in China;158 but also for worksite encouragement to eat healthy foods and exercise to prevent and reduce overweight. These may be supported through corporate social responsibility initiatives which UNICEF is engaged in.159

157 http://unicefstories.org/tag/rapidsms/
158 http://www.unicef.org/eapro/media_21031.html
Conflict of interest principles for private sector collaboration need to be clearly articulated and promoted. The Code and subsequent WHA Resolutions specify these in relation to the manufacturers of breastmilk substitutes, bottles and teats, and in some cases, complementary foods if marketed inappropriately. Further, in relation to IYCF, the 2003 Global Strategy for Infant and Young Child Feeding\textsuperscript{160} was very clear in limiting the role of manufacturers to conforming at every level with the International Code and meeting the specific quality, safety and labelling standards set by the Codex Alimentarius.

Examples of conflicts of interest for IYCF include sponsorship of training, workshops, meetings and events related to infant and young child nutrition by manufacturers of breastmilk substitutes, other products under the scope of the Code and manufacturers of foods and supplements for young children represents a conflict of interest and should be avoided. Similarly, the engagement of these companies in policy making, standard setting, development of guidelines, materials, education of the public, etc. should not take place. Health professionals, Governments, NGOs should not accept any donations or funding or other support from these companies.

In addition, potential conflicts of interest also arise in collaborating with companies that promote products to children that contribute to overweight, obesity, and other chronic conditions.

Conflict of interest also needs to be considered in relation to companies involved in fortification. It is a conflict of interest for example for UNICEF to allow fortificant premix or fortifying companies to influence the setting of national fortification standards for their own benefit or for specific fortified brands to be promoted more than others. It would be a conflict of interest for any private sector company to be involved in the drafting of the mandatory fortification standards and regulations. Collaborating with the private sector to implement and strengthen mandatory food fortification programmes is not a conflict of interest as the private sector are essential stakeholders in food fortification and are making a product that will benefit women and children.

It should also be clearly understood that although many staple foods and condiments are not particularly healthy foods (e.g. salt, wheat flour, sugar, oil) the objective of mandatory food fortification programmes is not to encourage greater consumption of these foods, but to ensure that they are fortified. Salt iodization is therefore completely compatible with salt reduction strategies; as salt reduction efforts succeed in reducing salt intake, iodization levels may be increased to ensure adequate iodine intake.\textsuperscript{161}

\section*{Laws, regulations and standard setting}

Governments have obligations to ensure that human rights, such as the child’s right to grow to the maximum of their genetic potential, are “respected” and “protected”. For this to happen the government has to ensure that nothing it does will prevent the realization of a right, which is to “respect” the right. The government is also obliged to take measures to ensure that no third party actions will prevent the realization of the right, which is to “protect” the right. In order to ensure the respect and protect dimensions of the government’s human rights obligations, it needs to create rules, develop standards, codes of conduct and regulations, as well as legislation to ensure this happens.

\textsuperscript{160} WHO/UNICEF. Global Strategy for Infant and Young Child Feeding. 2003. (ref. para 44).

Several interventions of the Packages involve legislative measures as shown below:

**Interventions from Core Package**
- Code of marketing of breastmilk substitutes
- Maternity protection
- Legislation on staple food and condiment fortification
- Reduction of tobacco consumption

**Interventions from the Teenage Pregnancy Package**
- Develop laws and policies that prohibit early marriage complementary food supplements

**Interventions from the Overweight and Obesity Package**
- Legislation to improve the nutritional quality of foods (reductions of salt, fats, sugars, elimination of trans fatty acids etc. and fortification)
- Legislation to control health claims and ensure nutrition signposting
- Legislation to ensure no vending machines or junk food sales in and around schools
- Legislation to control advertising of food aimed at children/youth

Examples are laws that implement and enforce the International Code of Marketing of Breast Milk Substitutes and subsequent relevant WHA Resolutions, legislation on marketing and the availability of junk food and beverages to children, legislation on food fortification and maternity entitlements. Having laws and standards is not enough however, as when there are no monitoring or enforcement mechanisms with effective sanctions then infractions will continue to occur.

The International Code of Marketing of Breast Milk Substitutes (BMS) was endorsed by the World Health Assembly in 1981. Several countries in the EAPR region, including Vietnam, the Philippines and Fiji have enacted legislation banning advertising and promotion of breastmilk substitutes and related products marketed for feeding children less than two years of age. Significant challenges are faced in enforcing this legislation, and many countries in the region have yet to enact national laws giving effect to the International Code in the first place. These countries may benefit from the lessons learned from successful advocacy and processes for the adoption of national laws, for example the experience of Vietnam on the Code and maternity protection legislation.

It is emphasized that the protection of breastfeeding is a major priority in the EAP region, one that faces major threats, and needs to be pursued both by effective, top-down national legislation that is effectively enforced, and by grassroots consumer and community mobilization to highlight adverse corporate practices, inherent risks of feeding infants breastmilk substitutes, and to demand accessible services to support breastfeeding.

The obligation of states to provide maternity protection in order to protect and promote breastfeeding was strengthened in 2000 with the revision of the 1952 Maternity Protection Convention, by the General Conference of the International Labour Organization (ILO). These international labour law standards recommend that member states adopt appropriate measures to ensure that women get a minimum maternity leave of 14 weeks, of which 6 weeks are compulsory after birth. In addition to this women should be provided with one or more daily breaks, or a daily reduction of hours of work to breastfeed her child. As noted in Chapter 3 however, few countries have national legislation following ILO standards.
Another law that is frequently broken concerns the legal age of marriage, which in most countries is 18 years of age. Despite this law, young girls are frequently married before this age with considerable negative consequences, including their nutrition status, both for the girl child bride (who almost inevitably becomes a mother herself) as well as for the child that she then bears. This violation of both children and women’s rights possibly represents one of the greatest challenges in terms of achieving gender equality in the Asian region. Laws can also be established to set minimum (and maximum) levels of nutrients in processed foods. The best example is for the iodization of salt, but other foods such as cereal flours and rice can also be fortified, most typically with iron and folate, while vegetable oils and sugar can be fortified with vitamin A. Levels of nutrients like trans fat, salt, sugar and so on which may be unhealthy in high quantities in processed food and can also be the subject of standards and regulations. Policies and regulations can also apply to financing mechanisms to reinforce healthy diets, such as food pricing policies and taxation of unhealthy foods.

The role of the UNICEF Country Office is in advocating with law-making and enforcing authorities for the rights of children and their mothers, as well as supporting those members of the NGO community that strive to help this happen. Specifically, UNICEF should raise awareness of the need for, and importance of, relevant legislation and standards, provide examples and lessons learnt from other countries and technical support in drafting legislation or setting standards. Advocacy and technical support should also be provided for the development of systems to monitor compliance and to enforce the legislation. Supporting national governments in developing legislation or standards is often a long process but if the legislation is well designed and systems are put in place for it to be enforced, legislation and standards represent “systems change” which is usually sustainable and potentially highly effective.

### Table 1: Role of UNICEF in implementing the packages of the regional approach to nutrition

<table>
<thead>
<tr>
<th>Package</th>
<th>Type of UNICEF Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct support</strong></td>
<td><strong>Advocacy and coordination</strong></td>
</tr>
<tr>
<td><strong>Core Package</strong></td>
<td>Direct support for all nutrition specific interventions through the health sector programme. Direct UNICEF support for implementation of the nutrition sensitive interventions, including testing models in pilot districts, should also be provided through WASH, Social Policy, and Education sector programmes.</td>
</tr>
<tr>
<td><strong>Nutrition in Emergencies</strong></td>
<td>Direct support for all the interventions. Plus function as Cluster lead, including ‘provider of last resort.’</td>
</tr>
<tr>
<td><strong>HIV and Infant Feeding</strong></td>
<td>Direct support for all interventions including development of recommendations, capacity building, training and supporting implementation.</td>
</tr>
<tr>
<td><strong>Water and Sanitation</strong></td>
<td>Direct support for all interventions, in particular the first three (BCC on hand washing with soap, BCC on safe disposal of faeces, ODF communities). Make improvement of nutrition a specific goal of WASH programmes.</td>
</tr>
<tr>
<td><strong>Child Wasting</strong></td>
<td>Direct support of interventions 1 (CMAM) and 3 (prevention and treatment of diarrhoea, pneumonia and malaria) including policy development, capacity building, provision of supplies etc. as appropriate.</td>
</tr>
<tr>
<td><strong>Overweight and Obesity Package</strong></td>
<td>Direct support for the school-based interventions related to counselling and nutrition education through the Education sector.</td>
</tr>
<tr>
<td><strong>Teenage Pregnancy Package</strong></td>
<td>Direct support of all interventions through the Health and Education Sections, as well as Social Policy.</td>
</tr>
<tr>
<td><strong>Food Insecurity Package</strong></td>
<td>No direct support role unless WFP is unable to support this intervention and if UNICEF has resources.</td>
</tr>
</tbody>
</table>
UNICEF’s Partners

National governments are UNICEF’s primary counterparts at country level, UNICEF uses the United Nations Development Assistance Framework (UNDAF) and One UN mandates to coordinate with the other United Nations agencies including WFP, WHO, UNFPA and FAO. UNICEF relies on Memoranda of Understanding (MOUs) and other types of agreements to guide collaboration and division of labour on nutrition between UNICEF and other agencies. At the regional level, UNICEF now has a framework of cooperation with the ASEAN Secretariat and a Letter of Understanding with Alive and Thrive (2014-2016). UNICEF also works with international and local non-governmental institutions to support the delivery of community-based interventions. Partnerships with academic institutions is becoming increasingly important to strengthen nutrition capacity and develop more robust monitoring systems.

Capacity Building

The capacity to act, or to implement nutrition activities at scale has often been found to be lacking, and the capacity to train, mentor and supervise people to manage, implement and monitor nutrition programmes even more so. The UNICEF global approach objective 4 is “to develop capacity at the human, institutional, organizational and infrastructural levels to implement nutrition programmes and strengthen nutrition governance.” Because nutrition is such a young science, there is a generalized lack of nutrition teaching in academic centres in LMICs, and the limited available nutrition content is out-dated and heavily clinically oriented. Because of this generalized lack of nutrition awareness and understanding, a broad based approach to nutrition work force development has been recommended. Many different types of professional can be trained in order to deliver the different nutrition interventions, as well as measure their impact, and these include non-nutrition professionals such as doctors, nurses and midwives, agricultural extension workers, social welfare workers, early childhood development centre staff, community health workers, and specialists such as dieticians, community nutritionists, and public health nutritionists.

Fortunately there are various sets of materials available for training health sector and community workers in the nutrition actions needed to improve maternal and child nutrition. For example, UNICEF has developed a new set of generic tools for programming and capacity development on community-based IYCF counselling. Aimed for use in diverse country contexts, the package of tools guides local adaptation, design, planning, and implementation of community-based IYCF counselling and support services at scale. The basic tool is a set of counselling cards. To date, some 30 countries are at various stages of adapting the materials to the local context, building capacity and rolling out community-based IYCF counselling and communication using the package. Various partners of the CORE Group have also contributed to design of training material to assist in the scaling up of the Essential Nutrition Actions (ENA). This comprises a trilogy of materials including a

167 The CORE Group is the implementing organization for the USAID Child Survival and Health Network Program. The CORE Group emerged organically, in 1997, when a group of health professionals from non-governmental development organizations saw the value of sharing knowledge and ideas about how to best help children survive. http://www.coregroup.org
booklet on Key ENA messages,\textsuperscript{168} the ENA Framework Training Guide for Health Workers\textsuperscript{169} and the ENA Framework Training Guide For Community Volunteers.\textsuperscript{170}

For health providers, WHO/UNICEF training materials include the BFHI,\textsuperscript{171} Integrated IYCF Counselling\textsuperscript{172} including HIV and infant feeding based on the most recent guidelines, Breastfeeding Counselling,\textsuperscript{173} and Growth Monitoring and Promotion.\textsuperscript{174} For pre-service education of health providers, WHO has a Model Chapter for medical textbooks on infant and young child feeding.\textsuperscript{175}

While the need to create short-term measures to build capacity to scale up nutrition quickly is recognized, there is also a growing consensus that over the medium and long-term professionalization must be a critical part of developing the nutrition workforce in LMICs.\textsuperscript{176} The creation of capacity is not in itself a panacea, and unless this is rooted in an appropriate understanding of the system's capacity and how that should be improved, it is unlikely to be fruitful.\textsuperscript{177} Workforce growth without systems for workforce support and quality assurance is unlikely to realize capacity built. There are many examples of staff being trained but then not being appropriately deployed because the professional function is not recognized. In Indonesia, despite having many academic institutions producing hundreds of nutrition graduates a year, the recent decentralization of governance to district level caused problems because nutrition professionals capable of developing local nutrition plans are rarely employed in the health service at that level.\textsuperscript{178} There is no system requirement for this, and the organizational role a nutritionist should play has not been cemented in decentralized structures.

Perhaps the greatest and most urgent need is to fast track the development of nutrition professionals to take charge of nutrition efforts at the district level. These professionals do not exist in most LMICs as the need is not perceived, and the local courses, if they exist, tend to support the development of nutrition research and/or clinical treatment specialists, not public health nutrition programme managers. Meeting this need in the short term would benefit from the establishment of a regional capacity to support such learning on the job.\textsuperscript{179} Such courses might be designed for existing MPH graduates for example, and be a one year course with distance learning, coupled with periodic meeting with mentors/supervisors (say for two weeks.


\textsuperscript{173} The 1993 Breastfeeding Counselling course is in process of being updated.


\textsuperscript{176} Hughes et al. Empowering our profession [Commentary].World Nutrition. 2012. www.wphna.org


\textsuperscript{179} Shrimpton et al. An overview and regional perspective on the assessment of nutrition capacity of national and mid-level personnel carried out in three Asian countries. Bangkok: UNICEF 2013.
every six months). Such professionals need not be specific for the health sector and/or local government functions, although the courses might eventually include different options to suite these two variants of function.

The need for all UNICEF staff to have a nutrition understanding is one that becomes increasingly evident. Nutrition related factors are responsible for almost half of the major causes of child mortality and morbidity globally, and nutrition issues increasingly pervade all sectors. Countries that are committing to the SUN movement are also committing to developing multisectoral approaches to tackle malnutrition. With this in mind it would seem appropriate that all UNICEF Country Programme team members gain a certain minimum level of nutrition fluency. In addition to which the lead technical person for nutrition in the country office should have qualifications that permit the office to exercise the high-level political advocacy and technical leadership it has to now provide.

**Monitoring, evaluation and research**

The generation, analysis, and use of data are of great importance for increased political commitment, programme modifications, and measuring impact. UNICEF is committed to using the conceptual framework of Monitoring of Results for Equity Systems (MoRES) for effective planning, programming, implementation, monitoring, and managing for results to achieve desired nutrition outcomes. Central to the MoRES approach are an equity refocus, management for results, and bottleneck and barrier analysis. The importance of targeting for ensuring that equity is achieved in the delivery of interventions has been emphasized in the district management functions discussed above.

The importance of carrying out bottleneck and barrier analysis has already been discussed in the section on national situation analysis and management of district level nutrition interventions through the health sector above. Once nutrition sensitive interventions are established and begin to spread, similar analysis should be performed for these as well.

The approach allows for effective programming such that programme planning, design, and budgeting, and implementation are more aligned with solving key nutrition deprivations affecting women and children. As an approach, MoRES emphasizes the importance of developing theories of change for both nutrition-specific and – sensitive interventions, which can result in progress being made towards nutrition targets. Also emphasized are a series of determinants which enable or hamper the achievement of desired results in terms of coverage of these interventions.

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The determinants framework (see Figure 12)\(^{182}\) has four main areas including enabling environment, supply, demand, and quality. Within these four areas, 10 determinants of coverage or results are measured against selected tracer interventions representing specific service delivery platforms. In selecting tracer interventions, care needs to be taken in identifying the various programme pathways to results, as is the case for a number of nutrition interventions including breastfeeding, complementary feeding, and the treatment of severe acute malnutrition, all of which affect utilization (use of services and uptake of behaviours/practices) and ultimately result in effective coverage. This may imply some paradigm shifts in design and planning for certain nutrition programme areas, which need to be disseminated to decentralized levels and accompanied by appropriate capacity building and support.

To this end, this regional approach emphasizes the use of indicators for the determinants as a means to support more frequent and real-time monitoring of progress, bottlenecks

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and barriers and ensuring feedback that translates to corrective policy and programme actions at national and sub-national levels. A modified version of this approach is applied in humanitarian contexts where adhering to the humanitarian principles for effective coordination, UNICEF will participate in monitoring supplies and their distribution to vulnerable populations receiving humanitarian assistance, while ensuring distribution reaches those who need it most.

The strength of the MoRES approach is that it builds on existing monitoring systems and data gathering tools. In some cases, existing information systems may need to be analysed and modified in order to allow analysis of all of the determinants of an intervention in a particular delivery platform or sector (see section on health system delivery of direct nutrition interventions above). Where information gaps exist and systems are weak, the approach proposes to use innovative methods, such as mobile and ICT platforms or rapid small sample surveys such as LQAS as a way to fill data gaps and validate routinely collected data. These technologies are increasingly driving and supporting community-level changes as well as local, national, and global economies and international development efforts. Advanced use of ICTs in nutrition programming, surveillance and monitoring of programmes and interventions will be of critical importance. UNICEF and its partners will strive to consider how these tools, if used appropriately and with proper planning, monitoring, and evaluation, can enhance engagement, increase impact, improve information management, lower costs, and expand reach.

MoRES, if applied according to the inherent logic encapsulated in the concept behind it, is a contribution to addressing the persistently most difficult area and the one requiring greatest attention, ‘management for results’. Indeed this Achilles heel of nutrition programmes is unlikely to be fixed until the information systems used to make decisions about nutrition at all levels of the system are created and put to work. Few, if any, of the countries in the region have such systems, which address the determinants of coverage (the so-called “process” indicators). Most of the information used for decision-making comes from national or subnational population-based surveys on nutrition status and outcomes, of which there is a surfeit.

Although the frequency with which monitoring, evaluation and research of nutrition programmes occurs is very different and with very different sorts of data collection methods, the overall logic should be similar. All three of these collect data in order to see if the interventions being used in programmes are working or not. The information created by analysing the data is then used for decision making at different levels of the system and with differing frequency. Monitoring is for checking if interventions are being implemented properly, it informs planning and programming, is typically concerned with ‘inputs’ and ‘outputs’ and is done frequently. Evaluation is to see if the interventions are having the desired effect and looks at ‘outcomes’ and ‘impact’ and is done far less frequently, perhaps once every three to five years.

The terms ‘input’, ‘output’, ‘outcome’, and ‘impact’ are standard not only for UNICEF, but also many other organizations (see Figure 13). There is an increasing recognition of the need to a shift from an emphasis on measuring inputs and outputs (‘traditional M&E’) to measuring outcomes. Inputs, outputs and intermediate, real-time outcomes should be

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monitored regularly, such as monthly through supervision at individual and/or clinic level. But then moving up the system monitoring becomes more aggregated and less frequent, with say quarterly review at the district level, every six months at the regional level and yearly at national level. The source of data for these is the routine reporting from the health monitoring and information system, which comes from individual health records. In order to verify this ‘patient’ database it is common to do cluster surveys, usually using randomly chosen clusters of households to interview community members in their households. These are used for checking immunization rates, for example, but nutrition information can also be gathered in these cluster surveys that may be done annually at each district level. Thus, health information systems can be used to indicate how well interventions are being implemented, attendance, and even to try to estimate coverage. However, to measure whether programmes are really working at the population level (i.e. not individual level), surveys are needed, and these should aim to assess high-level outcomes and impacts.

**Figure 13: Example of Nutrition Programme Monitoring and Evaluation**

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies</td>
<td>Geographic access to services including outreach and community-based</td>
<td>Coverage of micronutrient supplements increased</td>
<td>Micronutrient deficiencies reduced</td>
</tr>
<tr>
<td>Supplies incl. training materials, job aids</td>
<td>Staff trained and supervised</td>
<td>Coverage and quality of SAM treatment improved</td>
<td>Undernutrition and overnutrition reduced</td>
</tr>
<tr>
<td>Staff</td>
<td>Communication messages delivered</td>
<td>Knowledge and attitudes improved</td>
<td>Morbidity/ mortality reduced</td>
</tr>
<tr>
<td>Training</td>
<td>IYCF counselling provided</td>
<td>Social norms changed</td>
<td></td>
</tr>
<tr>
<td>Vehicles</td>
<td>Micronutrient supplements distributed</td>
<td>Feeding practices/behaviours changed</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>SAM treatment provided</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Monitoring:**
- Monthly at facility level
- Quarterly at community/district level
- Yearly at provincial level

**Review and evaluation:**
- Every 1-2 years for outcomes and 3-5 years at provincial level for impact
- Representative population samples
- Also collects socio-economic data
Collection and analysis of data, at national and subnational level, disaggregated by gender, age, income, and residence, are of course fundamental for any such monitoring, evaluation, and research. The latter two of these modalities collect their own data through special surveys with questionnaires and interviewers that travel to a select number of households wherever needed to get the information they want. Monitoring has traditionally suffered because it depends on routine information coming from the logbooks and/or patients records that is transcribed to special forms and then collected and summarized. This paper trail is often difficult to maintain and is onerous for the people that have to report what they are doing. This could all be changing however, as many new possibilities are being created by computers and especially by mobile phones. Another important aspect of monitoring is the concept of ‘child centred’ or ‘women centred’ routine reporting in the sense that reporting forms at the lowest level are for individuals and aim to ensure each individuals receives the complete set of interventions he/she should get. The focus is thus on holistic care rather than intervention focused.

**Evaluation** surveys are normally performed every four years or so in order to decide whether the programmes are working and/or how to strengthen them. This can only be ascertained by looking at the situation among a randomly selected sample of the population. Such surveys are performed in order to evaluate the impact of the health system actions on the morbidity, mortality and growth of mothers and children, for example. Evaluations also help determine whether the health of the population as a whole has improved over time. Such evaluation studies will also commonly collect socio-economic information on the populations sampled in order to strengthen such analysis and help better inform inferences about whether any change in an impact indicator was independent of income, for example, and/or was caused by the interventions that were put in place. Although not designed as “evaluation surveys” the Demographic Health Surveys or Multiple Indicator Surveys can allow analysis of such impact information for a variety of health and nutrition interventions, and so permit the drawing of inferences about programme success or failure, but such inferences are still just that, inferences UNICEF will need to partner with academic institutions (national and/or international), and/or with the national institution that undertakes demographic health surveys and/or censuses. Certainly the technical nutrition unit in the Ministry of Health should be involved in carrying out the measurement of impact/effectiveness evaluation. Governments can support the research process by 1) lending high-level support for rigorous evaluations and implementation research; 2) engaging in the process to prioritize implementation research proposals; 3) supporting the process for ethical approval of implementation research at the national-level; and 4) supporting the design phase, with identification of areas that can be incorporated into a plausibility approach design. Engaging support from experienced researchers is critical; by partnering and working with national institutions, national capacity to support such work can be strengthened at the same time.

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Implementation research

While UNICEF should not in general be supporting research on the efficacy of interventions, it can and should do more to support the building of the knowledge base by supporting effectiveness trials or the evaluation of programmes. Although randomized controlled trials are the gold standard for deciding if an intervention is efficacious, there is need for stronger evidence of the effectiveness of these efficacious interventions when scaled up through different mechanisms. UNICEF’s diverse programmes provide a unique opportunity to address knowledge gaps in implementation that can help improve future programming. For example, such research could help to improve the deliverability of existing interventions (especially to the most vulnerable), improve the access (including affordability) of existing interventions, improve the demand for services of existing interventions, or evaluate the appropriate mix and/or convergence of nutrition specific and nutrition-sensitive interventions.

Implementation research could be incorporated and engineered within regular programmes by using what has been called the plausibility approach. This approach takes advantage of staggered programme implementation to more rigorously evaluate the effectiveness of interventions. For example, as programmes are rolled out, certain districts are surveyed to serve as a baseline, then as the roll out continues, further periodic surveys are carried out and new districts are included, some of which with the intervention and others not. This piecemeal coverage of the intervention allows assessment of how the gradual introduction of the programmes impacts on the population being covered as compared to those not covered.

Plausibility evidence of project impact requires that certain districts in the ‘roll-out footprint’ of the planned interventions are deliberately over-sampled and surveyed every year or two years, with random selection of intervention and non-intervention household clusters within the same sampling frame. Socio-economic data on the target households also needs to be collected, in addition to the appropriate input, output, and outcome and impact measures. Impact measures should include both anthropometrics as well as biochemical indicators. The socio-economic data will allow drawing inferences on any improvements in impact objectives, as to whether they were due to the project interventions or to improvements in other factors.

In order to conduct relevant high-quality implementation research, there needs to be strategic engagement with partners throughout the research process, especially in the planning phase. National government, and other partners, should agree upon research priorities for nutrition. (This process could use criteria such as relevance; answerability in an ethical manner; affordability; sustainability; maximum potential impact on burden reduction; and, predicted impact on equity). Also, there needs to be consensus on how the implementation research agenda will be coordinated with the scale-up programmes.

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187 Implementation research is defined as the use of systematic research techniques “to improve access to efficacious interventions by developing practical solutions to common implementation problems.” UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (2003) Implementation Research in TDR: conceptual and operational framework. Geneva: World Health Organization. Report No.: TDR/IDE/SP/03.1. The findings of implementation research are meant to be applicable to other settings and tend to focus on implementation strategies for specific products or services.

BIBLIOGRAPHY

Adair et al. Associations of linear growth and rapid weight gain during early life with adult health and human capital in countries of low and middle income: findings from five birth cohort studies. Lancet 2013.


Barker DJP. The fetal and infant origins of adult disease: The womb may be more important than the home. BMJ 1990.


Catalano PM. Obesity and pregnancy - the propagation of a vicious cycle? J Clin Endocrinol Metab. 2003.

CEPAL/WFP. Análisis del impacto social y económico de la desnutrición infantil en América Latina: resultados del estudio en Centroamérica y República Dominicana.


EAPRO. Situation Analysis of Adolescent Pregnancy in East Asia and the Pacific (draft).
EAPRO. Strategy to reduce maternal and child undernutrition. EAPRO 2003 http://www.unicef.org/eapro/activities_3659.html


Herzer et al. Vitamin A supplementation for preventing morbidity and mortality in children from 6 months to 5 years of age. Cochrane Library 2010, Issue 12.


Indonesia National Health Survey (Riskesdas) 2010.


KM Weinberger et al. The way ahead for diversified diets and sustainable food systems in Asia and the Pacific. CAPSA-ESCAP, 2011.


Mangasaryan et al. Revisiting the concept of growth monitoring and its possible role in community-based nutrition programs. FNB 2011.

Mangham et al. Scaling up in international health: what are the key issues? Health Policy and Planning 2010.


Morris et al. Effective international action against undernutrition: why has it proven so difficult and what can be done to accelerate progress? Lancet 2008.


PAEDIATRIC & PERINATAL EPIDEMIOLOGY supplement: Improving maternal, newborn, and child health outcomes through better designed policies and programs that enhance the nutrition of women.


Ramakrishnan et al. Effect of women’s nutrition before and during early pregnancy on maternal and infant outcomes: A systematic review. Paediatric and Perinatal Epidemiology. 2012.


Tofail et al. The mental development and behaviour of low birth weight Bangladeshi infants from an urban, low-income community. EJCN 2012.


UNICEF. Community IYCF Counselling Package: Supportive Supervision/Mentoring and Monitoring Community IYCF. New York: UNICEF 2012.


UNICEF. IYCF Programming Status. Results of 2010-2011 assessments of key actions for a comprehensive infant and young child feeding intervention in 65 countries.


Vanuatu, Laos, the Philippines, Viet Nam, Myanmar, Cambodia, Solomon Islands, Indonesia, Malaysia (1999 data), and Timor.


WFP/UNICEF Updated guidance on mutual areas of responsibility and collaboration for nutrition. 2 April 2011.


WHO. Infant and young child feeding: Model Chapter for textbooks for medical students and allied health professionals (2009). NB the section on HIV and infant feeding is being updated in light of the 2010 recommendations.

WHO. Maternal, infant and young child nutrition: comprehensive implementation plan (2012). http://www.who.int/nutrition/topics/WHA65.6_annex2_en.pdf?ua=1


Yang Z. and Huffman S. Nutrition in pregnancy and early childhood and associations with obesity in developing countries. MCH 2012.

Young MR. and Martorell R. The public health challenge of early growth failure in India. EJCN 2013.
