

# A Glossary of Terms Related to Integrating Nutrition into Agricultural Extension Services

*This glossary contains concepts and terms commonly used by health and nutrition practitioners, but they may not be familiar to agricultural experts. The glossary is a living reference document for the INGENAES consortium members to facilitate cross-sectoral work on agriculture, nutrition and gender; terms can be added as the need develops. The definitions included in the glossary are sourced mostly from international and other organizations working in health and nutrition, only relying on sources such as Wikipedia when simplicity is the overriding objective.*

### **Key Concepts**

*The following concepts are becoming more frequently used among those working in the nexus of agriculture and nutrition. Sources for these definitions are provided in the text and reference section.*

<b>Nutrition-Sensitive Approaches</b> address the underlying and systemic causes of malnutrition.” (USAID 2014).	<b>Nutrition-Specific Interventions</b> address the immediate determinants of malnutrition (USAID 2014).
Interventions or programmes that address the underlying determinants of fetal 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 nutrition 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; early child development; women's empowerment; social safety nets; and water, sanitation, and hygiene. (Ruel and Alderman) (SPRING)	Interventions or programmes that address the immediate determinants of fetal and child nutrition and development—adequate food and nutrient intake, feeding, caregiving and parenting practices, and low burden of infectious diseases. (Ruel and Alderman) (SPRING).

### **Definitions of commonly-used nutrition-related terms for non-technical users**

**Acute Malnutrition.** Measurement of under-nutrition. Reflects a recent and severe process that has led to substantial weight loss, usually associated with caloric deprivation and/or disease. Acute malnutrition can take on three forms: wasting (see definition below), bipedal pitting edema and edematous wasting, and includes moderate acute malnutrition (MAM) and severe acute malnutrition (SAM).

**Biofortification.** Biofortification is the process of breeding food crops that are rich in micronutrients, such as vitamin A, zinc, and iron. These crops “biofortify” themselves by loading higher levels of minerals and vitamins in their seeds and roots while they are growing. When eaten, they can provide essential micronutrients to improve nutrition and public health.

**Body Mass Index (BMI).** A method to quantify the amount of solid tissue mass (muscle, fat, and bone) in an individual, and then categorize that person as *underweight*, *normal weight*, *overweight*, or *obese* based on that value. For Adults (20 years and above) It is calculated by dividing weight in kilograms by height in meters squared. Both high and low indexes are associated with poor health. The normal range for a health adult is 18.5 to 24.9. A BMI below 18.5 is considered underweight, while one above 25-30 is considered overweight. A BMI greater than 30 is considered obese, and one greater than 40 is morbidly obese. BMI is an inexpensive and easy-to-perform method of screening for weight categories that may lead to health problems. BMI Formula:  $\text{Weight (lb)} / [\text{height (in)}]^2 \times 703$  or for metric measurements  $\{\text{weight (kg)} / [\text{height (m)}]^2\}$ .

**Complementary Feeding.** The transition from exclusive breastfeeding to complementary feeding – typically covers the period from 6–24 months of age. This is a critical period of growth during which nutrient deficiencies and illnesses contribute globally to higher rates of undernutrition among children under five years of age. The SUN Movement aligns with the World Health Organization (WHO) recommendation that infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Thereafter, infants should receive nutritionally adequate and safe complementary foods, while continuing to breastfeed for up to two years or more.

**Dietary Diversity.** Dietary diversity is a measure of the number of individual foods or food groups consumed in a given time period.

**Dietary Diversity Score (DDS).** Dietary Diversity Score (DDS). The DDS can be scored on a household or individual basis. Household dietary diversity is defined as the number of unique food groups consumed by household members over a given period. The HDDS has been validated to be a useful approach for measuring household food access, particularly when resources for undertaking such measurement are scarce.

**Edematous wasting.** When a child suffers from wasting and bipedal edema at the same time.

**Essential Nutrition Actions (ENA).** In 1999, the WHO, in collaboration with UNICEF and the USAID

Basic Support for Institutionalizing Child Survival (BASICS) project, proposed effective, feasible, available and affordable interventions targeting the first 1000 days of life. These essential actions protect, promote and support priority nutrition outcomes: exclusive breastfeeding for six months; adequate complementary feeding starting at six months with continued breastfeeding for two years; appropriate nutritional care of sick and malnourished children; adequate intake of vitamin A for women and children; adequate intake of iron for women and children; and adequate intake of iodine by all members of the household. These interventions work best when combined with interventions to reduce infections, such as water, sanitation and hygiene.

**Exclusive Breastfeeding.** Breast milk contains all the nutrients an infant needs in the first six months of life. It protects against common childhood diseases such as diarrhea and pneumonia, and may also have longer-term benefits such as lowering mean blood pressure and cholesterol, and reducing the prevalence of obesity and type-2 diabetes. The SUN Movement aligns with the WHO recommendation on exclusive breastfeeding whereby infants receive only breast milk, no other liquids or solids– not even water – for the first six months of life, to achieve optimal growth, development and health.

**First Thousand Days or 1,000 day window (1000 days).** The first thousand days refers to the time from pregnancy to a child's second birthday, and is considered the most significant period in which malnutrition can have irreversible negative impact on children's health and development.

**Food Fortification.** The addition of one or more essential nutrients to a food, whether or not it is normally contained in the food, for the purpose of preventing or correcting a demonstrated deficiency of one or more nutrients in the population or specific population groups. (Codex Alimentarius). The process of adding micronutrients, or restoring those lost during processing, to food products.

**Food diversification** (see Dietary Diversity)

**Food security.** A commonly used definition was developed at the 1996 World Food Summit: Access by all people at all times to sufficient, safe and nutritious food needed for a healthy and active life,

encompassing access, availability, utilization and stability.

**Global Acute Malnutrition (GAM).** A measurement of undernutrition. The total proportion of children aged between 6 and 59 months in a given population who have **moderate or severe acute malnutrition**, plus. (The word 'global' has no geographic meaning.) When the GAM rate is equal to or greater than 15 percent of the population, then the nutrition situation is defined as 'critical' by WHO. In emergency situations, the nutritional status of children between 6 and 59 months old is also used as a proxy to assess the health of the whole population.

**Incidence.** Incidence is the number of newly diagnosed cases of a disease. An incidence rate is the number of new cases of a disease divided by the number of persons at risk for the disease. If, over the course of one year, five women are diagnosed with breast cancer, out of a total female study population of 200 (who do not have breast cancer at the beginning of the study period), then we would say the incidence of breast cancer in this population was 0.025 (or 2,500 per 100,000 women-years of study). (See also Prevalence).

**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 programs focus on the protection, promotion and support of exclusive breastfeeding for the first six months; timely introduction of complementary feeding and continued breastfeeding for two years and beyond.

**Kwashiorker.** Severe form of acute malnutrition characterized by bilateral edema.

**Lancet Series on Maternal and Child Undernutrition, 2008, 2013.** The well-respected peer-reviewed British medical journal published two sets of articles demonstrating the devastating and largely irreversible impact of malnutrition on young children (from pregnancy to a child's second birthday). The authors identified cost-effective, evidence-based nutrition interventions to prevent undernutrition during the critical 1,000-day window.

**Low Birth Weight.** Weight at birth less than 2,500 grams (88.18 ounces).

**Malnutrition.** A condition resulting from a dietary

imbalance. This result from inadequate nutrients for growth and maintenance or an inability fully utilize nutrients due to illness. It can also refer to an overconsumption of nutrients and can include overweight and obesity.

**Marasmus:** Severe form of acute malnutrition characterized by wasting of body tissues – marasmic children are extremely thin.

**Micronutrients:** Essential vitamins and minerals required in miniscule amounts by the body throughout the lifecycle.

**Moderate Acute (Underweight) Malnutrition (MAM).** A life-threatening condition, moderate acute malnutrition (MAM) is defined by a weight-for-height index of between -2 and -3 z-scores (or standard deviations) below the international standard or by a mid-upper arm circumference (MUAC) between 115 mm and 125 mm. If MAM is not addressed, it may progress towards severe acute malnutrition (severe wasting and/or oedema). MAM is also associated with a high number of nutrition-related deaths.

**Moderate (underweight) malnutrition (MM).** A measurement of undernutrition that refers to a weight-for-age index of between -2 and -2 z-scores (or standard deviations) below the median of the WHO child growth standards. A composite indicator, it can be due to a low weight-for-height (wasting) or a low height-for-age (stunting) or to a combination of both. Underweight affects many children in poor countries. Children with moderate underweight have an increased risk of mortality, and underweight is associated with a high number of nutrition-related deaths. If some of these moderately malnourished children do not receive adequate support, they may progress towards severe acute malnutrition (severe wasting and/or oedema) or severe stunting (height-for-age less than -3 z-scores), which are both life-threatening conditions.

**Morbidity.** Morbidity is another term for illness. A person can have several co-morbidities simultaneously. So, morbidities can range from Alzheimer's disease to cancer to traumatic brain injury. Morbidities are NOT deaths.

**Nutrient Dense.** Foods with a high micronutrient and/or protein content per calorie. Relates to

proportion of nutrients in foods. High fat foods can be considered nutrient dense as well, but a more commonly used definition refers to micronutrients and protein.

**Nutrition, Assessment, Counseling and Support (NACS).** The NACS approach aims to improve the nutritional status of individuals and populations by integrating nutrition into policies, programs, and the health service delivery infrastructure. NACS projects strengthen the capacity of facility- and community-based health care providers to deliver nutrition-specific services while linking clients to nutrition-sensitive interventions provided by the health, agriculture, food security, social protection, education, and rural development sectors. The interventions involve assessment methodologies, counseling approaches, and support such as therapeutic or complementary foods, supplements, etc.

**Oral Rehydration Therapy (ORT).** ORT is a fluid replacement strategy used to prevent or treat dehydration that is most commonly caused by diarrhea. It involves drinking water with modest amounts of sugar and salt added, while continuing to eat. When diarrhea is severe or long-lasting, the therapy also includes supplemental zinc. Caretakers are taught the signs of dehydration and/or worsening dehydration. The World Health Organization and UNICEF specify indications, preparations and procedures for ORT.

**Prevalence.** A measurement of the extent of disease in a population. Prevalence is a measure of disease that allows us to determine a person's likelihood of having a disease. The proportion of a population with a given condition.

**Ready-to-use therapeutic foods (RUTF) and Ready-to-use supplementary foods.** RUTFs are 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. Ready-to-use supplementary foods are meant to supplement diet to treat moderate acute (underweight) malnutrition. There are efforts to harmonize these types of ready-to-use foods.

**Scaling Up Nutrition Movement (SUN).** The SUN collaborative process began in 2009 with the development of the Scale Up Nutrition Framework. It has evolved into a Movement that is both

stimulated and reinforced by political interest in nutrition among leaders of national governments and development partners. SUN is a global push for action and investment to improve maternal and child nutrition based on evidence that shows that proper nutrition during the 1000 days between a woman's pregnancy and her child's second birthday gives children a healthy start at life and that poor nutrition during this period leads to irreversible consequences such as stunted growth and impaired cognitive development.

**Severe Acute Malnutrition (SAM).** Very low weight for height Z-score or MUAC, or the presence of nutritional edema. WHO and UNICEF recommend the use of a cut-off for weight-for-height of below -3 SD of the WHO standards to children as having SAM or a MUAC of less than 115 mm. This is an immediately life threatening condition if left untreated.

**Social Behavior change communication (SBCC)** has been defined in the field of health as the strategic use of communication to promote positive health outcomes, based on proven theories and models of behavior change. SBCC employs a systematic process beginning with formative research and behavior analysis, followed by communication planning, implementation, and monitoring and evaluation. Audiences are carefully segmented, messages and materials are pre-tested, and both mass media and interpersonal channels are used to achieve defined behavioral objectives. SBCC is being increasingly applied to other sectors such as agriculture (reference needed for Citations)

**Social Behavior Change Communication Programs (SBCCP).** Social Behavior Change Communication programs are designed to encourage behaviors that will improve health status and related long-term outcomes. Previously known as Information-Education-Communication (IEC), the change in name implies a switch from materials production to strategically designed programs that influence behavior.

BCC programs include a wide range of interventions that fall into three broad categories:

- Mass media (radio, television, billboards, print material, the internet)
- Interpersonal communication (client-provider interaction, group presentations)
- Community mobilization

**Stunting.** Low height-for-age measurement used an indicator of chronic malnutrition, calculated by comparing the height-for-age of a child with a reference population of well-nourished and healthy children ( $> -2$  SD).

**Supplementation.** Supplementation refers to the provision of added nutrients in pharmaceutical form (such as capsules, tablets or syrups) rather than in food.

**Thousand Days (see First Thousand Days)**

**Undernutrition.** An insufficient intake and/or inadequate absorption of energy, protein or micro-nutrients that in turn leads to nutritional deficiency.

**Water, Sanitation and Hygiene (WASH).** WASH, used in international development programs, refers to "Water, Sanitation and Hygiene." WASH activities

include the provision of safe water for drinking, washing and domestic activities, the safe removal of waste (toilets and waste disposal) and health promotion activities to encourage protective hygiene behavioral practices amongst the affected population. Access to safe water, adequate sanitation, and proper hygiene education can reduce illness and death, and also impact poverty reduction and socioeconomic development.

**Wasting (see Severe Acute Malnutrition).** Reflects a recent and severe process that has led to substantial weight loss, usually associated with caloric deprivation and/or disease. Wasting ( $> -3$  SD) is calculated by comparing the weight-for-height of a child with a reference population of well-nourished and healthy children or by measuring the mid-upper arm circumference of less than 115 mm.

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For further information on the SUN Movement, see [www.unscn.org/en/sun-scaling-up/](http://www.unscn.org/en/sun-scaling-up/) and <http://scalingupnutrition.org>

The Lancet Series on Nutrition can be found here: [www.thelancet.com/series/maternal-and-child-undernutrition](http://www.thelancet.com/series/maternal-and-child-undernutrition). The series was updated in 2013: [www.thelancet.com/series/maternal-and-child-nutrition](http://www.thelancet.com/series/maternal-and-child-nutrition)

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