



Nutrition Training for Media, PRs and Communications Personnel FMOH in collaboration with ECSC- SUN

December, 2017
Dire Hotel, Adama



Basics of Food and Nutrition



Objectives

- **Know:** Basics about food & Nutrition
- **Feel:** Well understood food & nutrition basics
- **Do:** Share knowledge about Food & nutrition



Brainstorming

1. Food and Nutrition?
2. Food security and Nutrition security?



Why we eat

Any solid or liquid material consumed by a living organism to:

- supply energy,
- replace tissue or participate in such reactions.
- build body and
- Protect from disease















































Food and Nutrition

- **Food:** -Any substance that people or animals eat consisting nourishing and nutritive components-called **Nutrients**
- **Nutrition:** The science of food and its relationship to **health**. Concerned primarily with the part played by **nutrients** in body growth, development and maintenance
- **Nutrient** or “food factor”; are active chemical components in the food that play specific roles in the body.
- **Good nutrition** means: “maintaining a nutritional status that enables us to grow well and enjoy good health.



For adequate health we need to consume different food items from each food group

For good health eat at least 4 different food groups at every meal!

STAPLES	LEGUMES/NUTS	VEGETABLES	ANIMAL FOODS	FATS	FRUITS
Millet 	Lentils 	Kale 	Egg 	Cooking oil 	Mango 
Sorghum 	Peas 	Broccoli 	Fish 	Butter 	Papaya 
Maize 	Broad beans 	Carrot 	Beef 	Sesame Seeds 	Avocado 
Teff 	Chick peas 	Orange sweet potato 	Lamb 	Linseed 	Banana 
Barley 	Beans 	Pumpkin 	Poultry 	Sunflower seeds 	Grapes 
Wheat 	Ground nut 	Cabbage 	Milk 	Pumpkin seeds 	Pineapple 
Oats 		Squash 	Yoghurt 	Avocado 	Guava 
		Tomatoes 			Orange 

Recommended:

Children

- 4 or more food groups/day

-

Reproductive age women

-5 or more food groups/day

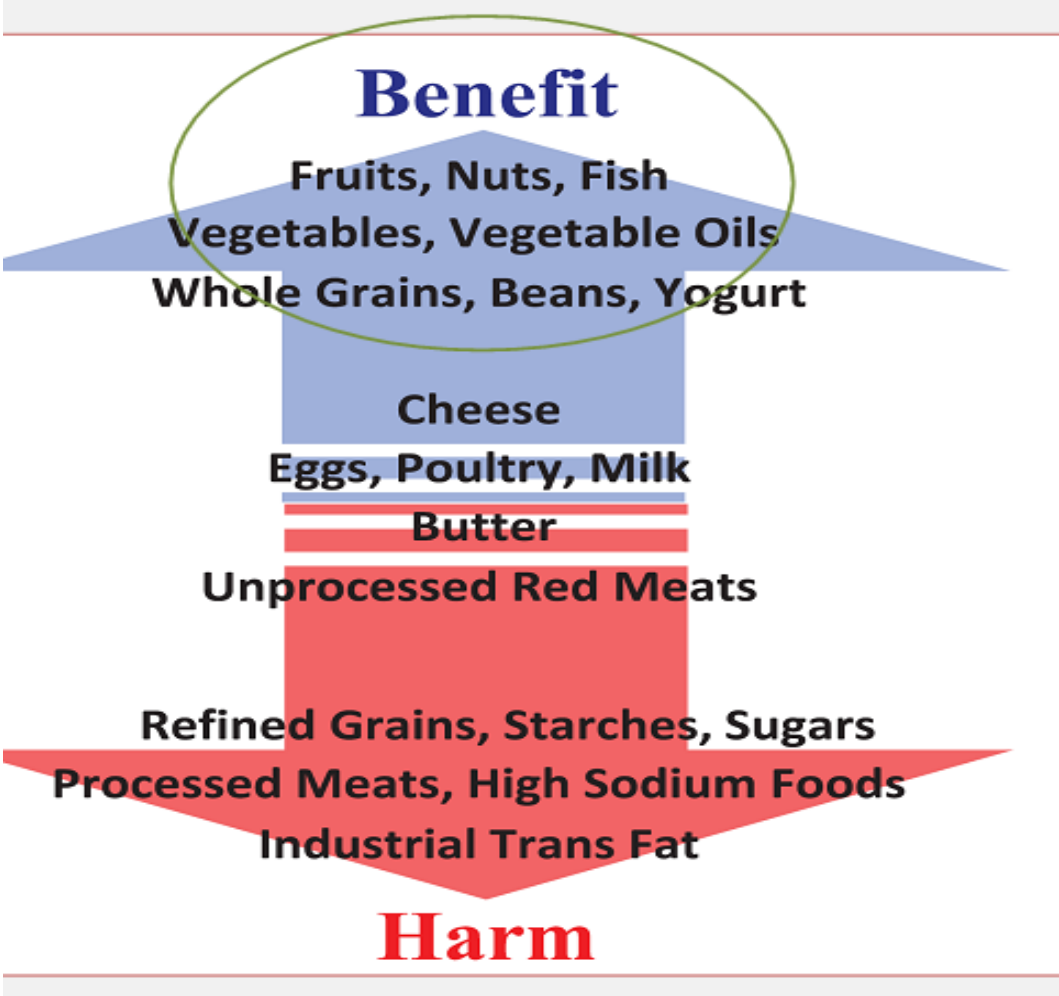
What does the typical diet look like (feast/fast)?

Food groups: Can be seen as a pyramid

Different Foods have different nutrients profile

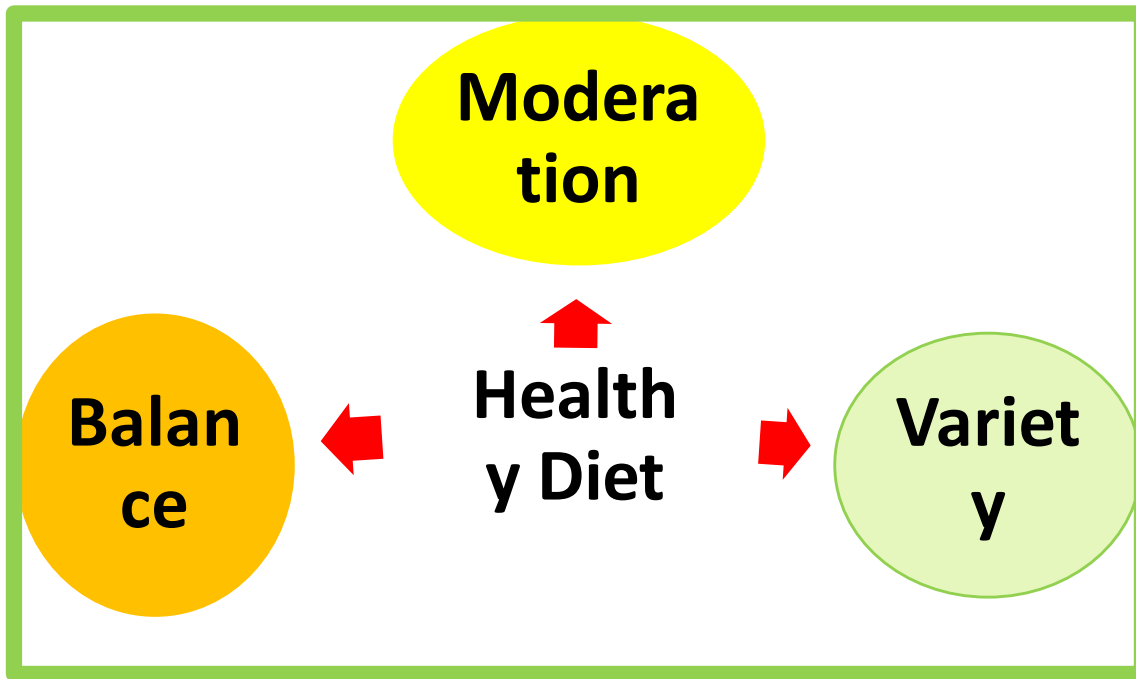
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Healthy
Diet

Concept of Healthy Diet



Age,
Sex
Physiology
Life style
Health status

Based on physiological need, life stage development & related factors

Food and Nutrition Security

Food security

- Availability
- Access
- Utilization
- Sustainability

Nutrition Security

- = Food security
- + Food processing /
Preparation and feeding
- + body utilization of nutrients
- + health care and sanitation

Nutritional status



CLASSIFICATION OF FOODS

Classification by origin:	Classification by chemical composition:	Classification by predominant function
<ul style="list-style-type: none">• Food of Animal origin• Food of plant origin	<ul style="list-style-type: none">• Protein• Fats• Carbohydrates• Vitamins• Minerals etc.	<ul style="list-style-type: none">• Body building foods:- meat, milk, poultry, fish, eggs, pulses etc.• Energy giving foods: cereals, sugars, fats, oils etc.• Protective foods: - vegetables, fruits, milk, etc.



Nutrients

▪ **Macro-nutrients:** needed in large amount for a wide range of body functions and processes.

- Proteins

- Fats

- carbohydrates

▪ **Micronutrients:** required by the body in miniscule amounts throughout the life cycle.

- Vitamins

- minerals



Nutrients' function

Nutrients	Function
Carbohydrate	<ul style="list-style-type: none">• Main source of energy, providing 4 Kcals per one gram• Essential for the oxidation of fats and for the synthesis of certain non-essential amino acids.
Proteins	<ul style="list-style-type: none">• Body building• Repair and maintenance of body tissues• Maintenance of osmotic pressure• Synthesis of bioactive substances and other vital molecules
Fat	<ul style="list-style-type: none">• They are high energy foods, providing as much as 9 kcal for every gram.• Serve as vehicles for fat-soluble vitamins• Support viscera such as heart, kidney and intestine; and fat beneath the skin provides insulation against cold.



Nutrients' function

Nutrients	Function
Vitamins and minerals (Micronutrients)	<ul style="list-style-type: none">• Normal vision.• Integrity and the normal functioning of Tissue• It supports growth, especially skeletal growth• Protect against some epithelial cancers such as bronchial cancers.• Bone growth• Mental development –improved IQ• Disease prevention-Goiter, Anemia



Cause of Malnutrition:

- When the body is not getting enough nutrients.
 - ✓ Due to an inadequate or unbalanced diet,
 - ✓ Digestive or absorption problems or
 - ✓ Other medical conditions (illness),

Malnutrition : includes both under or over nutrition

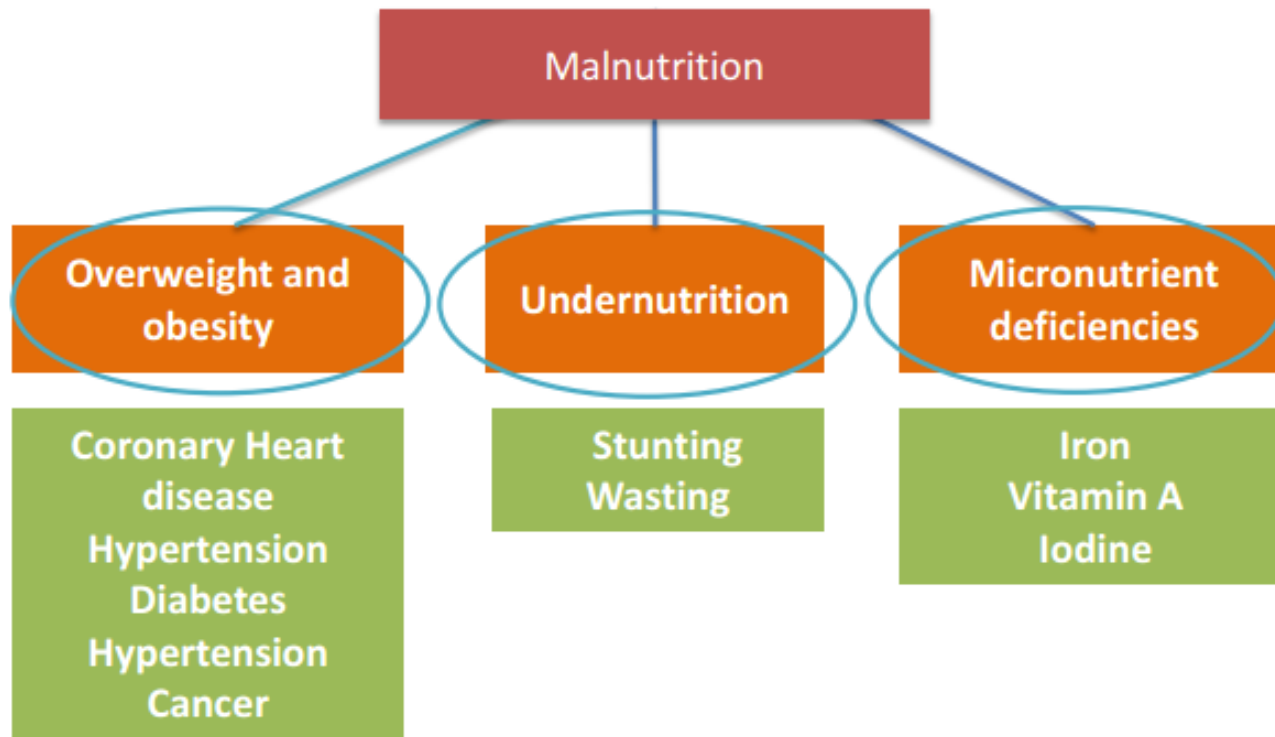
Over nutrition

- results from too much nutrient intake relative to requirements

Undernutrition

- underweight,
- short, thin and
- deficient in vitamins & minerals.

Triple Burden of Malnutrition



- Thank you for your Attention!

- **Exercise: 24 hour recall, classify your intake into food groups**



Malnutrition

- **Mal-nutrition** – inappropriate nutrition
 - Results from a **relative** or **absolute deficiency** or **excess** of one or more essential nutrients.
- **Can refer to over- and under nutrition**
 - **Undernutrition** is the result of consumption of inadequate quantity or quality of food over an extended period of time.
 - **Over nutrition** is the result of consumption of excess quantity of food
=> excess energy
- The most commonly used indicators of undernutrition are:
 - **Stunting/Shortness**- reflects height-for-age; it is an indicator of chronic malnutrition
 - **Wasting/Thinness** - means that one is too thin for his/her height; Acute-and severe usually associated with starvation and/or disease.
 - **Underweight/Lightness**- reflects a low weight for age.

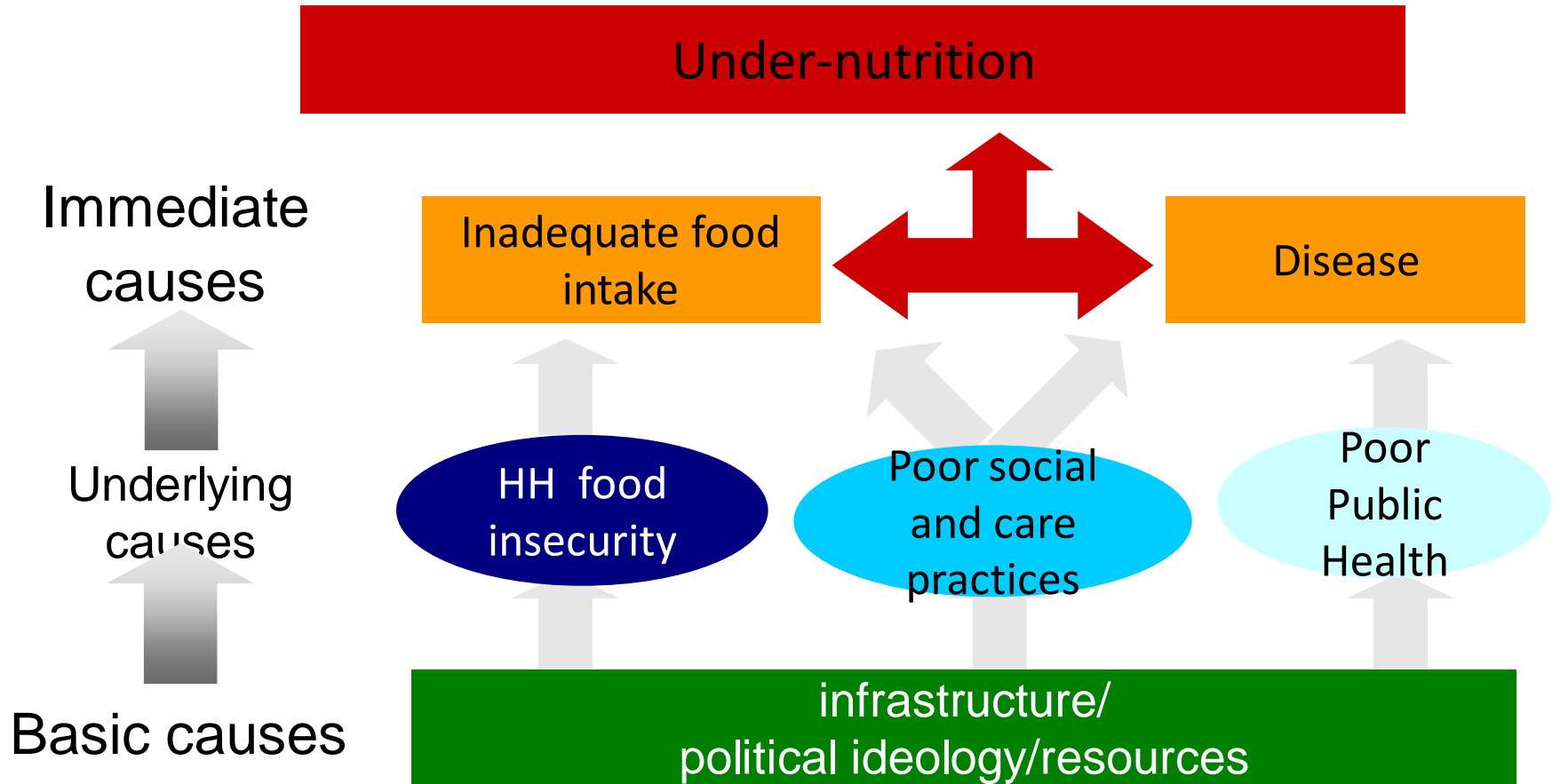


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The conceptual model for under-nutrition



Stunting

- Cumulative process that develops over the long-term as a result of inadequate intake or repeated infections, or both
- Stunted growth is a reduced growth rate in **human development**.
- By two years of age, stunting may be irreversible.
- Chronic malnutrition goes mainly unnoticed and is sometimes referred to as '**silent malnutrition**'
- It also leads to **premature death** later in life because vital organs never fully develop during childhood
- A stunted child is often **inches shorter than** a child who's had enough of the right kind of food.



Stunting

- Their immune system is weaker, leaving them more vulnerable to disease. They're five times more likely to die from diarrhoea.
- *Main causes of stunting*
 - 1. Inadequate food:** to support the fast growth and development of children
 - 2. Infection:** Frequent infection during early life
 - 3. IUGR:** Intrauterine growth retardation



Stunting



STUNTING



Focused IYCF

Exclusive breastfeeding-the infant receives only breast milk and no other liquids or solids, not even water for the first six months. The only exceptions are prescribed drugs, ORS and supplements (Vitamins & minerals) .

Colostrum is the first thick, yellow milk secreted by the breasts in the first few days after childbirth.

Benefits : it contains antibodies and other protective proteins that protect against infections and help regulate a baby's developing immune system;

- it contains growth factors, which help the infant's intestine to mature and function;
- it is rich in Vitamin A, Vitamin K and other nutrients; and
- it helps to prevent or reduce jaundice, which can be common among babies.



Focused IYCF

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.
- The target range for complementary feeding is generally considered to be 6–23 months.
- Starts after the six completed months.



Problems with CF

- Early introduction
- Late introduction (beyond 8 months)
- Provided in small amounts and not enough to meet the caloric and nutrient gap
- Less dense in calorie and nutrients



Four important things about CF

- At what age to introduce CF
- What foods are to be given
- The quantity to be given
- How often to feed the baby



Energy Requirements

- The total energy requirements of healthy, breastfed infants are approximately
 - 615 kcal/d at 6-8 months
 - 686 kcal/d at 9-11 months
 - 894 kcal/d at 12-23 months of age



WHO Food groups

No.	Food Group	Purpose
1	Grains, root and tubers	Good sources of energy
2	Legumes and Nuts: Peas, beans, lentils and nuts (good sources of protein)	Important for growth repair and body building
3	Milk other than breast milk, cheese or yogurt	For the child to grow health and have strong bones
4	Flesh foods (meat, fish, poultry and liver/organ meats (Good sources of iron, vitamin A and zinc)	Will assist in growth and development and will help children stay active
5	Eggs	Help child to grow
6	vitamin-A rich fruits and vegetables Papayas, mangos, bananas, avocados, pumpkin, orange fleshed sweet potato and carrot.	Help the child to have healthy eyes and fewer infections
7	Oils, fats and sugars	Provide energy, fuel
8	Other fruits and Vegetables:	Provide protection from illness



Keeping complementary foods safe and clean

- The main points to remember for clean and safe preparation of foods are:
 - Clean hands
 - Clean utensils
 - Separate raw and cooked
 - Safe water and food



Nutrition Information and Misinformation

- Not everything on the Internet is true!!
- Determination of the reliability of a website is very important
- Not everything on the news is accurately reported
- **Finding credible information is critical-** government health agencies and facilities, research institutions, universities, Professional health organizations, Professional journals



His Name is Today

We are guilty of many errors and many faults, but our worst crime is abandoning the children, neglecting the fountain of life. Many of the things we need can wait, the child cannot. Right now is the time his bones are being formed, his blood is being made and his senses are being developed. To him we cannot answer tomorrow.

His name is today.”

Gabriela Mistral

Nobel Prize Winning Poet from Chile



Thank you for your attention

